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CE

TÜV ISO 9001 01 100 89394 ISO 14001 01 104 9245/01
ISO 9001 Certified number : 01 100 89394 ISO 14001 Certified number : 01 104 9245101
Fujitsu General (Thailand) Co., Ltd.

TÜV DIN EN ISO 9001 Certificate: 01 100 79269 ISO 14001 BUREAU VERITAS Certification UKAS
ISO 9001 Certified number : 01 100 79269 ISO 14001 Certified number : 310102-UK
Fujitsu General (Shanghai) Co., Ltd.

CNAS MANAGEMENT SYSTEM IAF
ISO 9001 Certified number : 00608Q11061R2M ISO 14001 Certified number : 00609E20454R2M
Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.

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6MGV21-1305E

Preliminary Info.

GENERAL

Refrigerant R410A INVERTER

HYPER TROPICAL SPEC

AIRSTAGE™ V-II

Variable Refrigerant Flow System

TROPICAL series

Multi Air Conditioning System for Buildings

FUJITSU GENERAL LIMITED

AIRSTAGE™ V-II
TROPICAL series

Creation of Comfort

Fujitsu General have been developing and manufacturing high quality and energy efficient products for more than 35 years. Using the latest Japanese technology and state of the art expertise, our products have been designed in accordance with our policy to “create the most comfortable environment” possible.

HYPER TROPICAL SPEC

Heat Pump
8 to 42HP

S series
10HP /
Heat recovery
& Heat pump

10HP / Heat recovery
8,10HP / Heat pump
& Cooling

V series
8 to 42HP / Heat pump

V-II series
High efficiency and Compact design model
Extensive lineup from 8HP to
48HP in 2HP increment / Heat pump

VR-II series
8 to 48HP /
Heat recovery

For Commercial Use

HISTORY

2001 | 2003 | 2004 | 2006 | 2009 | 2011 | 2012 | 2013

For Residential & Light Commercial Use

J series
6HP / Heat pump

J-II series
High efficiency model
4HP to 6HP / Heat pump

Providing the maximum satisfaction to all customers

FUJITSU GENERAL's VRF “AIRSTAGE” Series has been developed based on our long-term air-conditioning technology know-how and was first provided 11 years ago. We have offered a series of products from large homes to large-scale buildings to meet the various market needs.

Building owners

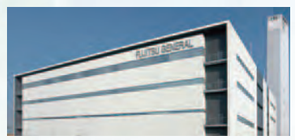
Installers

End users

Service and Management companies

High quality development and production environment

The Headquarters-R&D Center (Japan) is equipped with a wide range of testing equipment envisioning a variety of operating conditions. This includes a testing tower with a 60m height difference for buildings. We provide high quality & reliable products that meet the customers' needs from all over the world through this advanced R&D Center and 6 factories based in China and Thailand.



R&D Center (Japan) and 60m height testing tower
Central R&D center for global air conditioner development.

FUJITSU GENERAL CENTRAL AIR-CONDITIONER(WUXI)CO.,LTD.(China)
VRF Main factory. ISO9001 and ISO14001 certified.

Fujitsu General`s VRF System
designed by Tropical Spec

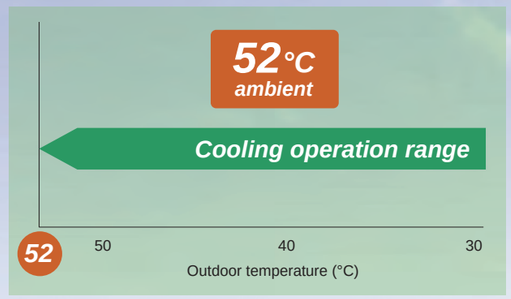
HYPER TROPICAL SPEC

Fujitsu General tropical VRF is designed for tropical weather.
High performance is achieved even at high outdoor temperatures by using of high outdoor temperature compatible electronic parts, large heat exchanger, high performance rotary compressor, and high performance inverter control.

Feature

High ambient operation design

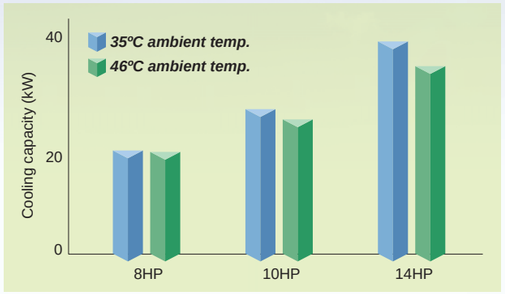
Possible to operate cooling up to 52ºC outdoor temperature



Feature

Powerful cooling capacity design

Keeping high cooling power at even high ambient temperature



Feature

Anti-corrosion treatment design

All metalic and PCB components are protected against corrosion

AIRSTAGE™ V-II

Variable Refrigerant Flow System

TROPICAL series

Refrigerant R410A

INVERTER

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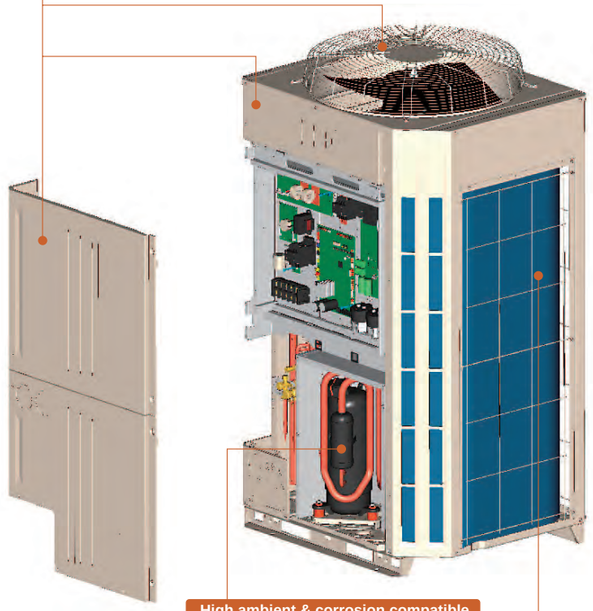
High reliability considering
long-term safety and confidence

High Reliability

Heavy anti-corossion treatment design

Anti-corrosion coated casing parts

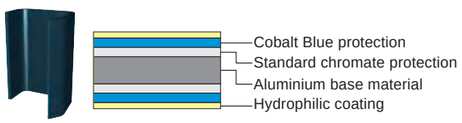
Satisfied the JRA* heavy anti-corrosion regulation(4002)



High ambient & corrosion compatible

PCB componets
Refrigerant cycle component

Blue fin heat exchanger

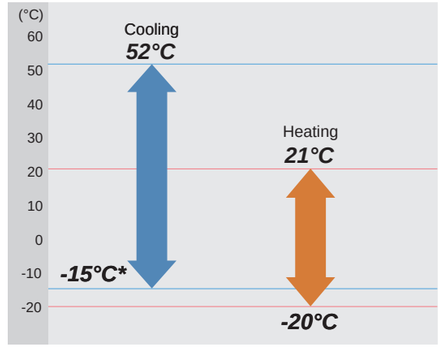


*JRA: Japan Refrigeration Association

High ambient operation design

Possible to operate cooling up to 52ºC outdoor temperature by adopting DC fan motor, large propeller fan and large heat exchanger.

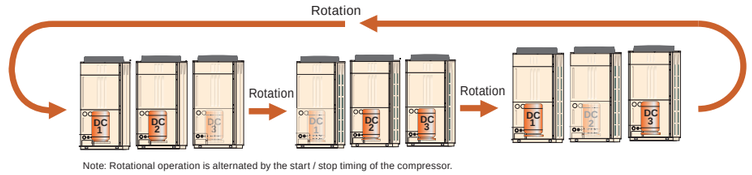
Cooling operation
up to 52ºC
ambient



*:When a multiple outdoor unit connection is used, operating range is from -5˚C to 46˚C in cooling.

Life-extending operation

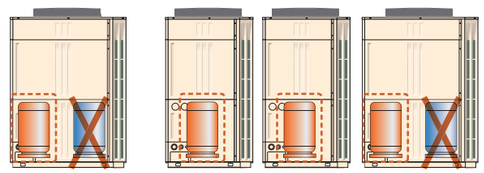
Outdoor unit rotational operation
The compressor starting order is rotated so that the running time is shared.



Note: Rotational operation is alternated by the start / stop timing of the compressor.

Backup operation

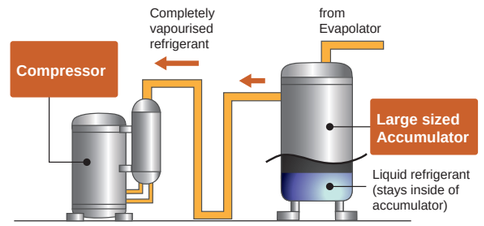
If one of compressor fails, backup operation will be performed by the remaining compressors as emergency.*1



*1 Note: Backup operation may not be possible depending on the combination and trouble state.

Liquid back flow protection

By adopting a large sized accumulator, the refrigerant which is not completely vapourised stays inside of the accumulator to ensure no liquid refrigerant is fed back into the compressor.

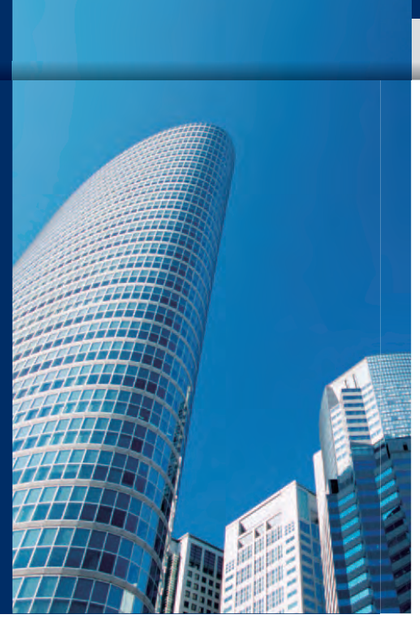


Oil Recovery operation

Periodic oil recovery operation is done automatically in order to feed back oil from the indoor unit to compressor.

Advanced system considers
high efficiency operation

High Efficiency Operation



Energy saving technology that boosted operation efficiency

Powerful large propeller fan
By using CFD*1 technology, A newly designed fan achieves high performance and low noise operation.

*1. CFD = Computational Fluid Dynamics

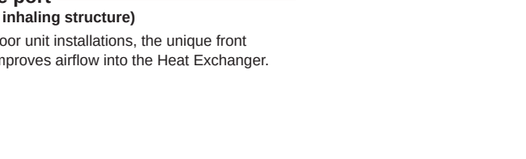
DC fan motor
Power consumption has been reduced by 25% compared to previous models by using a compact and high performance DC fan motor.

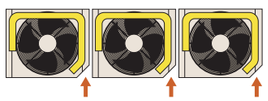
Subcool heat exchanger
High Heat Exchange efficiency is achieved by using an internal projection shape double pipe construction.

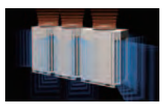
Sine-wave DC inverter control
High efficiency operation is realized by using a sine wave DC inverter control.

DC twin rotary compressor
Significantly greater efficiency is realized by use of a large capacity DC twin rotary compressor with substantially increased refrigerant intake and compression efficiency.

4-face heat exchanger
Heat exchange efficiency is significantly improved by the introduction of a new 4-face heat exchanger that increases effective surface area.





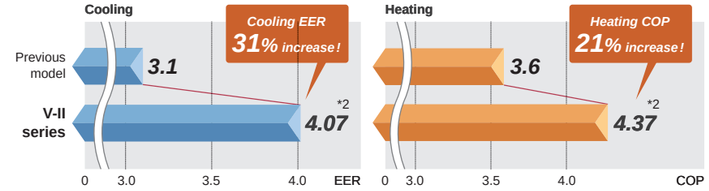


Front intake port
(corner cut air inhaling structure)
In multiple outdoor unit installations, the unique front intake design improves airflow into the Heat Exchanger.

Significantly improved EER/COP

Significantly greater efficiency is realized by the use of a DC twin rotary compressor, inverter technology, and large heat exchanger.

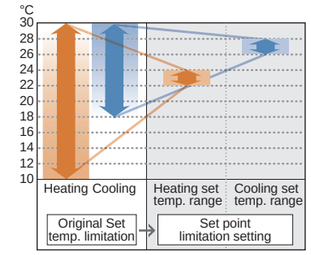
* "EER/COP" is the coefficient of performance
[= capacity (kW) ÷ input power (kW)].
*EER/COP values are based on our own testing method.
*2. The data refers to an 8HP outdoor unit.

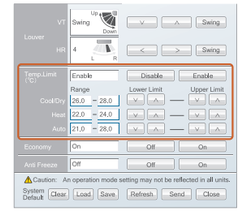


Various energy saving features

Room temperature set point limitation

The minimum and maximum temperature range can be set giving further energy saving while considering the comfort of the occupants.





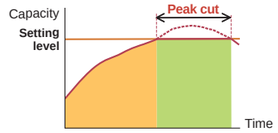
Operation setting (System Controller)

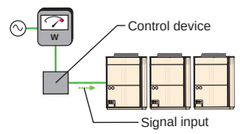
Auto-off timer

Each remote controller is equipped with an OFF timer function that automatically stops operation when a fixed time has elapsed from the start of operation. This prevents waste of energy.
(Note : Except simple remote controller)

Capacity save operation

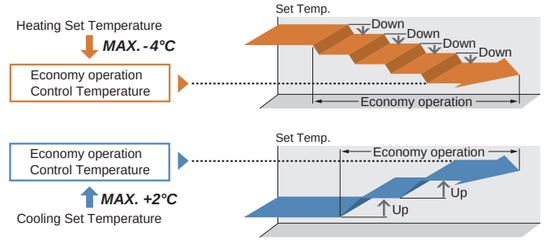
Operation capacity can be set in 5 steps for rated capability.
The power consumption at peak is cut down and the maximum load is suppressed.





Economy operation

Economy operation can be set by remote controller.
The temperature setting is offset automatically over a certain period of time.



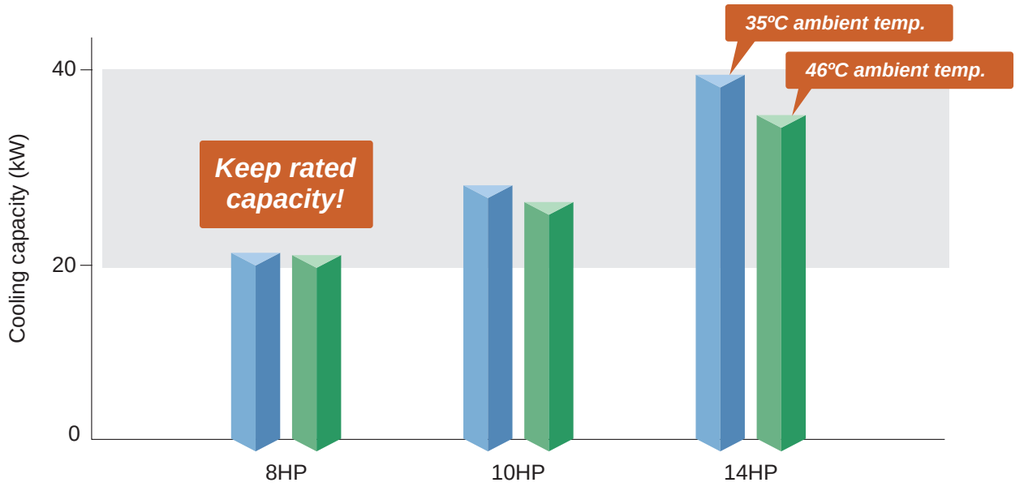
Low noise, easy operational settings, and comfortable temperature adjustment allows for V-II systems to be used in building air conditioning applications.

Comfort and Convenience

Powerful cooling capacity design

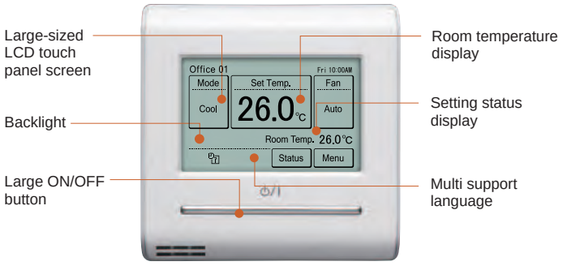
HYPER TROPICAL SPEC

High cooling power has been realized by adopting large heat exchanger, high capacity DC inverter compressor, sub-cooler equipment, etc.



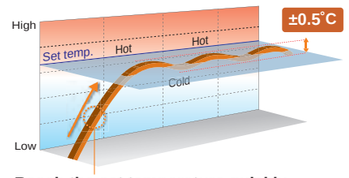
New Touch Panel Wired Remote Controller

The new wired remote controller has an easy to use LCD touch panel. This new controller has a back light function and can easily control the air conditioner which provides a better energy saving operation of the air conditioner.



Precision refrigerant flow control

Precision and Smooth refrigerant flow control is achieved by using a DC Inverter control in conjunction with individual indoor unit electronic expansion valve control. This allows for a high precision comfortable temperature control of ±0.5°C.



Reach the set temperature quickly

Thermal change of the room

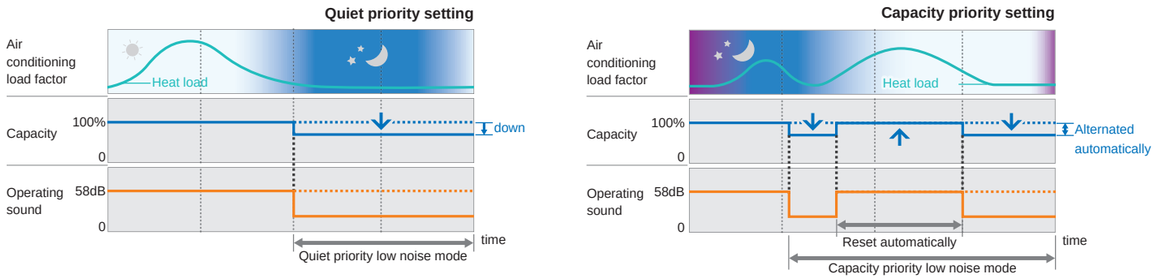
*Simulation in heating operation.

Comfortable operation is achieved due to a small variation of room temperature

Quiet operation

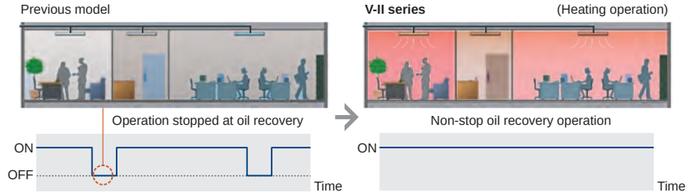
Low noise mode

Two low noise modes can be selected automatically by quiet priority setting and capacity priority setting depending on the usage environment and outside temperature load.



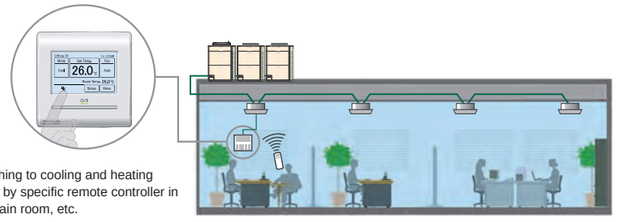
Non-stop oil recovery operation

A comfortable room condition is maintained during oil recovery mode because the product continues to operate without stopping the cooling or heating operation.



Auto changeover function

Auto changeover setting allows for the product to easily switch between cooling and heating modes regardless of the operation mode of other indoor units. This can be done via specific indoor unit with wired remote controller. This ensures comfortable operation all year round.



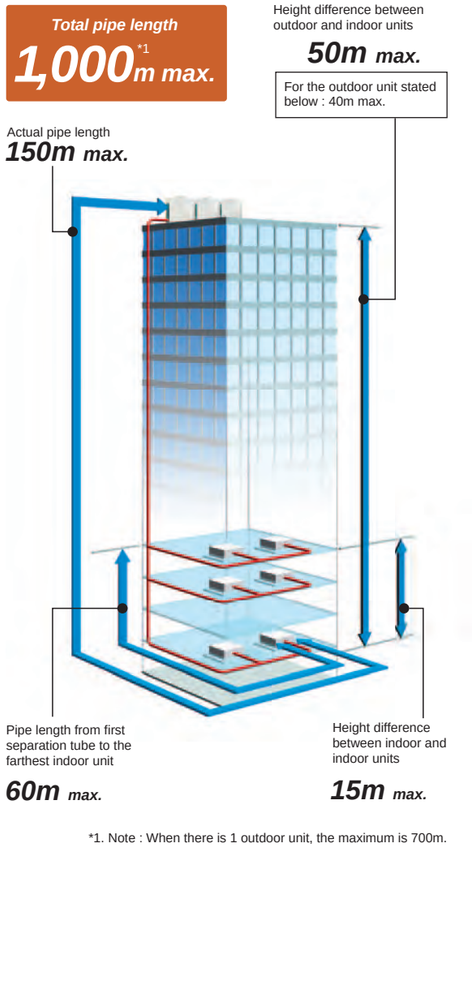
Switching to cooling and heating mode by specific remote controller in the main room, etc.

V-II systems can be applied to
a wide variety of Building applications due to
the reduced outdoor unit size and
piping length capabilities

Design Flexibility

Overall piping length 1,000m

World's top class overall piping length of 1,000m allows for application in a wide variety buildings.


Total pipe length
1,000*1m max.
Height difference between outdoor and indoor units
50m max.
For the outdoor unit stated below : 40m max.
Actual pipe length
150m max.
Pipe length from first separation tube to the farthest indoor unit
60m max.
Height difference between indoor and indoor units
15m max.

*1. Note : When there is 1 outdoor unit, the maximum is 700m.

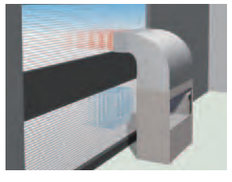
High static pressure of 80Pa

The outdoor unit can have a condenser hood easily connected with a static pressure of 80Pa standard. This allows outdoor units to be installed within plant rooms in high rise buildings.

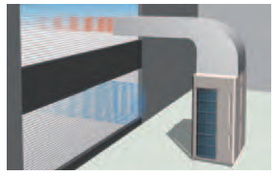
Powerful discharge with an external static pressure of 80Pa.

80Pa as standard

Previous model

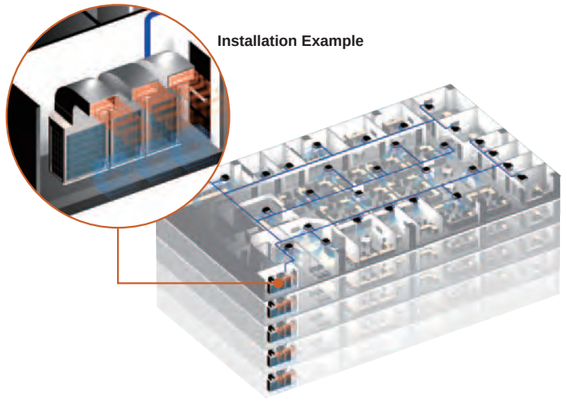


V-II series



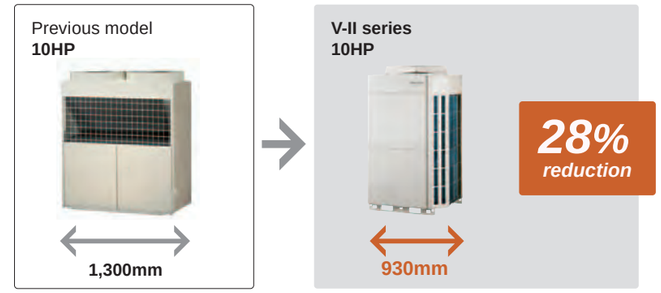
Large diameter fan and DC motor has been utilized allowing an external static pressure of 80Pa. This is approximately 2.6 times greater than the previous model.

Installation Example



Space saving and compact size

Compact size has been achieved by significantly reducing the width of the outdoor units compared to previous models.



Wide capacity range

System capacity range has been extended from 8HP To 42 HP via one refrigerant curcuit. 12 types, 55models of indoor unit can be selected ranging from 2.2kW to 25kW in capacity.

Wide variation of outdoor units
8HP to 42HP, 18 models

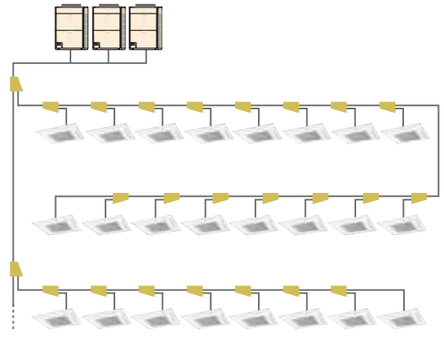
Wide variation of indoor units
12 types 55 models

High capacity connection

Various combinations from 8HP to 42HP with 2HP increments. 12 types, 55 models of indoor units can be selected ranging from 2.2kW to 25kW in capacity. A maximum of 130% indoor unit connectable capacity.

Connectable indoor unit capacity range
50% to 130%

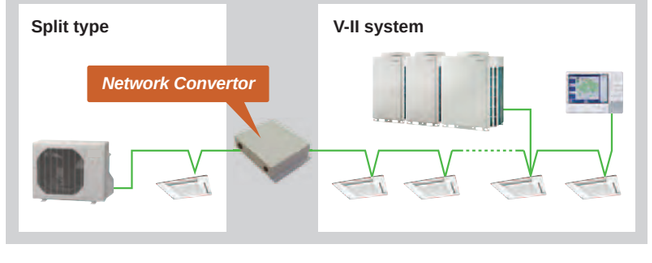
Connectable indoor unit number for 42HP system
up to 41



Note : When indoor unit connected capacity is greater than 100%, individual indoor units will operate at a slightly lower capacity when maximum capacity is required.

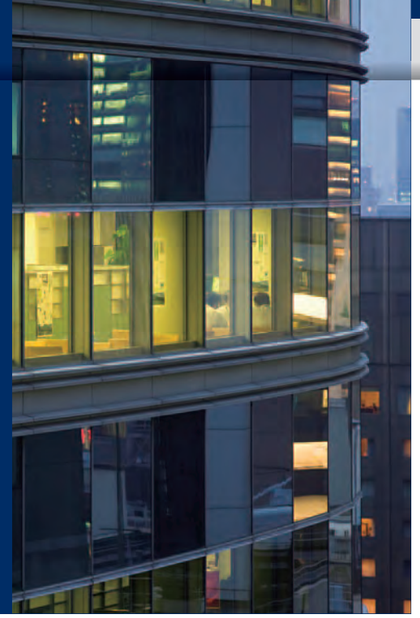
Integration operation

FGL split type air-conditioner (over 18,000BTU) can be connected to VRF Network via Network Convertor and possible to operate from VRF central controller.



From transportation of the product to address setting for commissioning, significant improvements have been made which reduce the cost of installation.

Easy Installation



Easily transported

Light weight

20%
weight reduction
(Than Previous model)

Note: In the case of 14HP

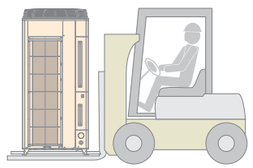
Easily craned using lifting belt hooks

Design of outdoor unit allows for lifting straps to be used

Can be transported in a small elevator

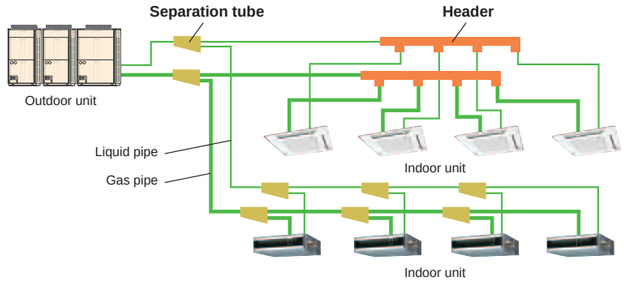
Transporting by forklift

Transport with forklift is possible.



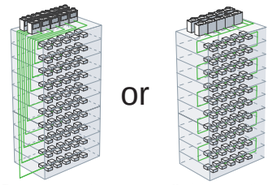
Easy piping connection

Piping connection can be done using separation tube & header.



Simple transmission network connection

Installation is made easier as the communication wiring can be connected continuously to any component.

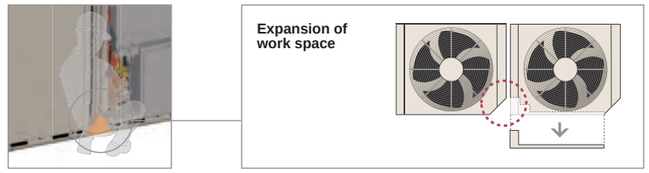


Up to maximum length 3,600m

Note:Serial connection can`t use the automatic address setting in a multiple refrigerant system.

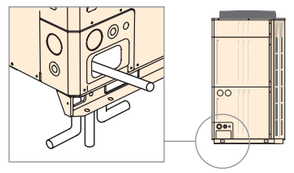
Easy access

By adopting a L-Shape front panel that can be removed, the work space for installation and service has been significantly expanded by this new design. For multiple installations, work is performed easily and efficiently even in a narrow space.



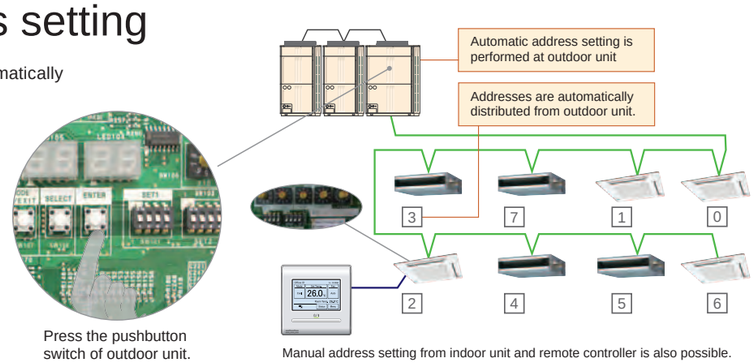
Flexible piping connection

Piping and wiring are available to the front, left and right, and bottom.



Automatic address setting

The address of each indoor unit can be automatically set by button switch of outdoor unit.



Press the pushbutton switch of outdoor unit.

Manual address setting from indoor unit and remote controller is also possible.

Designed for Quick Service response,
Easy maintenance and Troubleshooting

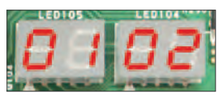
Easy Service & Maintenance

Design for easy service and maintenance

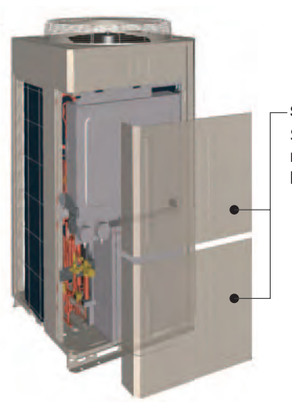
Inspection and replacement of main parts are easier due to innovative construction and an LED operational display.

Consolidated electrical components make maintenance easy
Movable PCB panel that allows for easier maintenance work behind the PCB

Easy-to-read 7-segment LED display which explains operational and trouble status



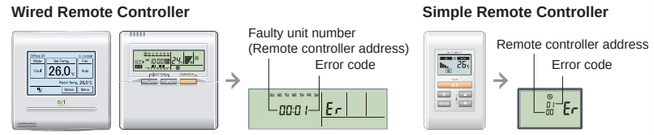
Maintenance of electrical components, valves, and compressor parts from the front is possible.



Split front panel
Split front panel allows for maintenance from top or bottom of the outdoor unit

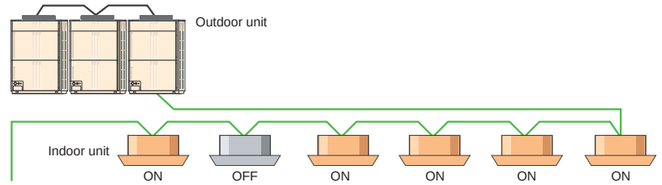
Error status can be checked easily via the indoor unit wired controller

An error code is displayed on a liquid crystal screen.



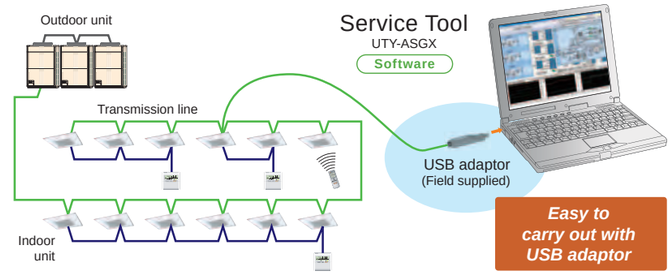
Continuous operation during maintenance

Non-stop operation
When servicing a specific indoor unit, maintenance can be performed even without turning off the other indoor units.



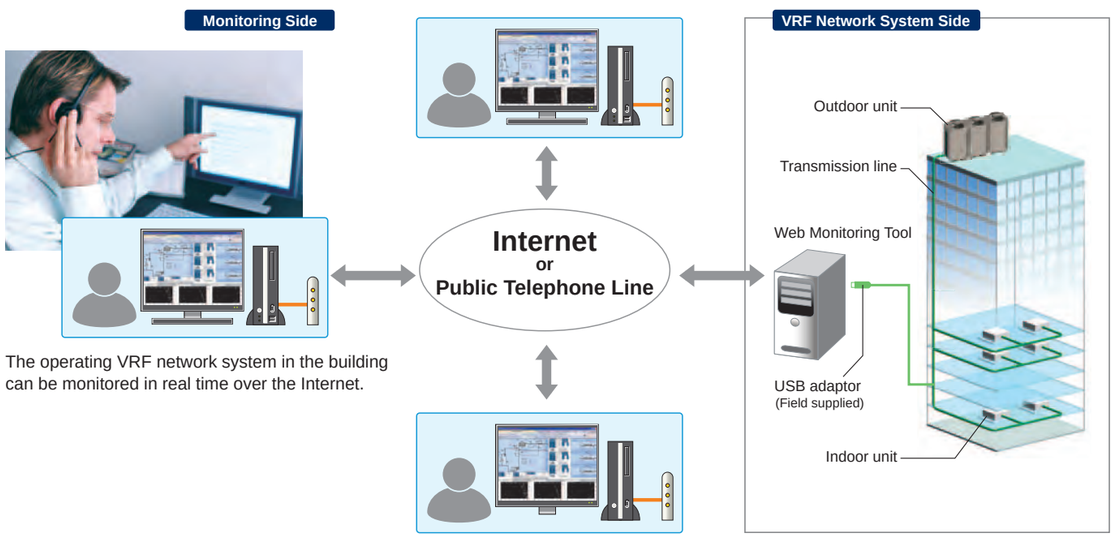
Trouble diagnosis by Service Tool

Suitable maintenance is possible by analysis of the operation data. Connection anywhere in the VRF network is easy.



Remote monitoring

The Web Monitoring system allows you view system operation at all times over the internet ensuring trouble free operation.



The operating VRF network system in the building can be monitored in real time over the Internet.

Outdoor Units Lineup

Standard combination

Rating Capacity range	HP	8	10	14	16	18	20	22	24
Set Model name		AJH072LNLAH	AJH090LNLAH	AJH126LNLAH	AJH144LNLAH	AJH162LNLAH	AJH180LNLAH	AJH198LNLAH	AJH216LNLAH
unit1		AJH072LNLAH	AJH090LNLAH	AJH126LNLAH	AJH072LNLAH	AJH090LNLAH	AJH090LNLAH	AJH126LNLAH	AJH126LNLAH
unit2					AJH072LNLAH	AJH072LNLAH	AJH090LNLAH	AJH072LNLAH	AJH090LNLAH
unit3									

28	30	32	34	36	38	42
AJH252LNLAH	AJH270LNLAH	AJH288LNLAH	AJH306LNLAH	AJH324LNLAH	AJH342LNLAH	AJH378LNLAH
AJH126LNLAH	AJH126LNLAH	AJH126LNLAH	AJH126LNLAH	AJH126LNLAH	AJH126LNLAH	AJH126LNLAH
AJH126LNLAH	AJH072LNLAH	AJH090LNLAH	AJH090LNLAH	AJH126LNLAH	AJH126LNLAH	AJH126LNLAH
	AJH072LNLAH	AJH072LNLAH	AJH090LNLAH	AJH072LNLAH	AJH090LNLAH	AJH126LNLAH

Energy efficiency combination

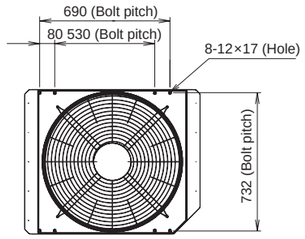
24	26	28
AJH216LNLAHH	AJH234LNLAHH	AJH252LNLAHH
AJH072LNLAH	AJH090LNLAH	AJH090LNLAH
AJH072LNLAH	AJH072LNLAH	AJH090LNLAH
AJH072LNLAH	AJH072LNLAH	AJH072LNLAH

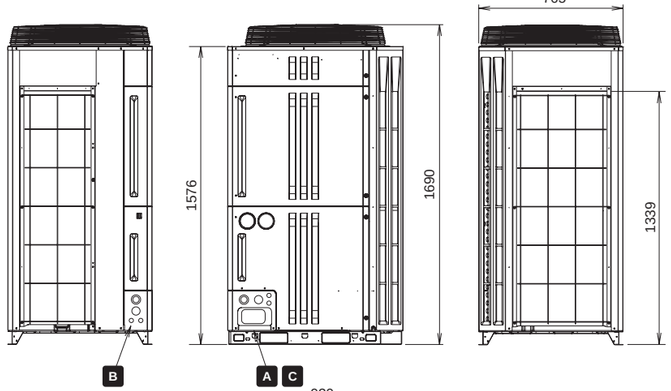
Dimensions

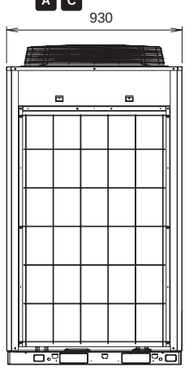
(Unit : mm)

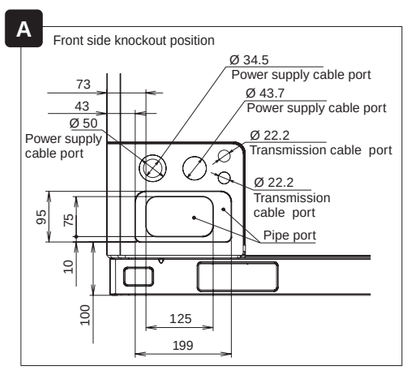
8, 10HP

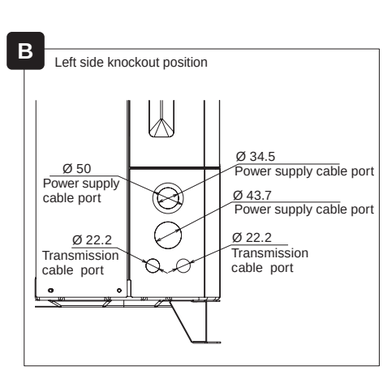
AJH072LNLAH / AJH090LNLAH





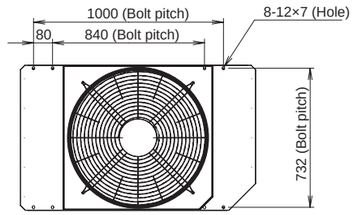


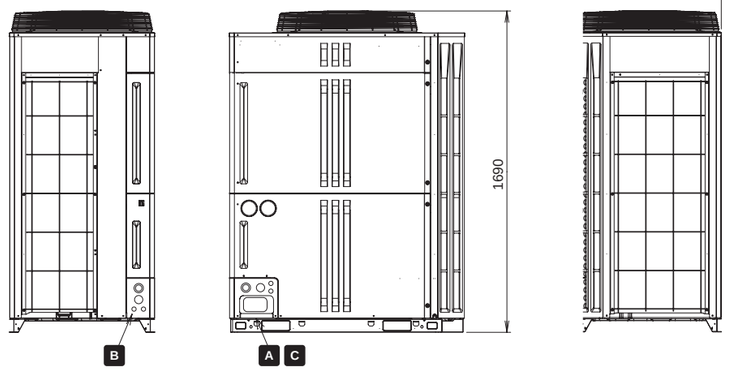


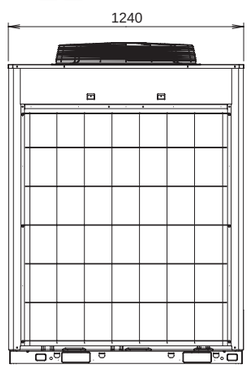


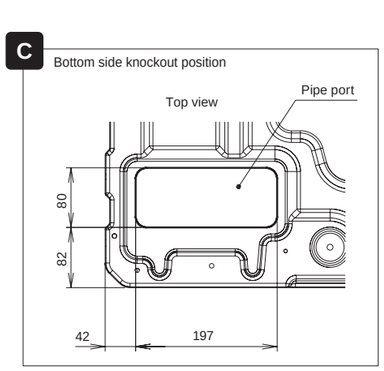
14HP

AJH126LNLAH









Specifications

Standard combination

Rating Capacity range	HP	8	10	14	16	18	20	22	24
Set Model name		AJH072LNLAH	AJH090LNLAH	AJH126LNLAH	AJH144LNLAH	AJH162LNLAH	AJH180LNLAH	AJH198LNLAH	AJH216LNLAH
unit1		AJH072LNLAH	AJH090LNLAH	AJH126LNLAH	AJH072LNLAH	AJH090LNLAH	AJH090LNLAH	AJH126LNLAH	AJH126LNLAH
unit2					AJH072LNLAH	AJH072LNLAH	AJH090LNLAH	AJH072LNLAH	AJH090LNLAH
unit3									
Maximum Connectable Indoor Unit *1		13	13	18	26	26	26	28	31
Indoor unit connectable capacity	kw	11.2-29.1	14.0-36.4	20.0-52.0	22.4-58.2	25.2-65.5	28.0-72.8	31.2-71.1	34.0-88.4
Power source		3N ～ 400V, 50Hz							
Capacity Cooling(T1)	kw	22.4	28.0	40.0	44.8	50.4	56.0	62.4	68.0
Capacity Cooling(T3)	kw	22.4	24.3	30.7	44.8	46.7	48.6	53.1	55.0
Capacity Heating(T1)	kw	25.0	31.5	45.0	50.0	56.5	63.0	70.0	76.5
Input power Cooling(T1)	kw	5.51	7.73	11.53	11.02	13.24	15.46	17.04	19.26
Input power Heating	kw	5.72	7.83	11.45	11.44	13.55	15.66	17.17	19.28
EER Cooling(T1)	W/W	4.07	3.62	3.47	4.07	3.81	3.62	3.66	3.53
COP Heating	W/W	4.37	4.02	3.93	4.37	4.17	4.02	4.08	3.97
Air flow late	m^3/h	11,100	11,100	13,000	11,100×2	11,100×2	11,100×2	13,000＋11,100	13,000＋11,100
Sound pressure level *2 Cooling	dB(A)	56	58	60	59	60	61	61	62
Sound pressure level *2 Heating	dB(A)	58	59	61	59	62	62	62	63
Maximum external static pressure	Pa	80	80	80	80	80	80	80	80
Compresor motor output	kw	3.9	3.9	3.9＋4.5	3.9×2	3.9×2	3.9×2	3.9×2＋4.5	3.9×2＋4.5
Heat exchanger fin		Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
Dimensions Height	mm	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions Width	mm	930	930	1,240	930×2	930×2	930×2	1,240+930	1,240+930
Dimensions Depth	mm	765	765	765	765	765	765	765	765
Weight	kg	220	220	303	220+220	220+220	220+220	303+220	303+220
Refrigerant charge	kg	11.2	11.2	11.8	11.2×2	11.2×2	11.2×2	11.8＋11.2	11.8＋11.2
Connection pipe diameter Liquid	mm	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88
Connection pipe diameter Gas	mm	22.22	22.22	28.58	28.58	28.58	28.58	34.92	34.92
Operation temperature range Cooling	°CDB	-15 to 52 *1	-15 to 52 *1	-15 to 52 *1	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
Operation temperature range Heating	°CWB	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Rating Capacity range	HP	28	30	32	34	36	38	42
Set Model name		AJH252LNLAH	AJH270LNLAH	AJH288LNLAH	AJH306LNLAH	AJH324LNLAH	AJH342LNLAH	AJH378LNLAH
unit1		AJH126LNLAH	AJH126LNLAH	AJH126LNLAH	AJH126LNLAH	AJH126LNLAH	AJH126LNLAH	AJH126LNLAH
unit2		AJH126LNLAH	AJH072LNLAH	AJH090LNLAH	AJH090LNLAH	AJH126LNLAH	AJH126LNLAH	AJH126LNLAH
unit3			AJH072LNLAH	AJH072LNLAH	AJH090LNLAH	AJH072LNLAH	AJH090LNLAH	AJH126LNLAH
Maximum Connectable Indoor Unit *1		36	39	41	41	41	41	41
Indoor unit connectable capacity	kw	40.0-104.0	42.4-110.2	45.2-117.5	48.0-124.8	51.2-133.1	54.0-140.4	60.0-156.0
Power source		3N ～ 400V, 50Hz						
Capacity Cooling(T1)	kw	80.0	84.8	90.4	96.0	102.4	108.0	120.0
Capacity Cooling(T3)	kw	61.4	75.5	77.4	79.3	83.8	85.7	92.1
Capacity Heating(T1)	kw	90.0	95.0	101.5	108.0	115.0	121.5	135.0
Input power Cooling(T1)	kw	23.06	22.55	24.77	26.99	28.57	30.79	34.59
Input power Heating	kw	22.90	22.89	25.00	27.11	28.62	30.73	34.35
EER Cooling(T1)	W/W	3.47	3.76	3.65	3.56	3.58	3.51	3.46
COP Heating	W/W	3.93	4.15	4.06	3.98	4.02	3.95	3.93
Air flow late	m^3/h	13,000×2	13,000+11,100×2	13,000+11,100×2	13,000+11,100×2	13,000×2+11,100	13,000×2+11,100	13,000×3
Sound pressure level *2 Cooling	dB(A)	63	63	63	64	64	64	65
Sound pressure level *2 Heating	dB(A)	64	63	64	65	65	65	66
Maximum external static pressure	Pa	80	80	80	80	80	80	80
Compresor motor output	kw	3.9×2＋4.5×2	3.9×3＋4.5	3.9×3＋4.5	3.9×3＋4.5	3.9×3＋4.5×2	3.9×3＋4.5×2	3.9×3＋4.5×3
Heat exchanger fin		Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
Dimensions Height	mm	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions Width	mm	1,240×2	1,240+930×2	1,240+930×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×3
Dimensions Depth	mm	765	765	765	765	765	765	765
Weight	kg	303+303	303+220+220	303+220+220	303+220+220	303+303+220	303+303+220	303+303+303
Refrigerant charge	kg	11.8×2	11.8+11.2×2	11.8+11.2×2	11.8+11.2×2	11.8×2+11.2	11.8×2+11.2	11.8×3
Connection pipe diameter Liquid	mm	15.88	19.05	19.05	19.05	19.05	19.05	19.05
Connection pipe diameter Gas	mm	34.92	34.92	34.92	34.92	41.27	41.27	41.27
Operation temperature range Cooling	°CDB	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
Operation temperature range Heating	°CWB	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Energy efficiency combination

Rating Capacity range	HP	24	26	28
Set Model name		AJH216LNLAHH	AJH234LNLAHH	AJH252LNLAHH
unit1		AJH072LNLAH	AJH090LNLAH	AJH090LNLAH
unit2		AJH072LNLAH	AJH072LNLAH	AJH090LNLAH
unit3		AJH072LNLAH	AJH072LNLAH	AJH072LNLAH
Maximum Connectable Indoor Unit *1		39	39	39
Indoor unit connectable capacity	kw	33.6-87.4	36.4-94.6	39.2-101.9
Power source		3N ～ 400V, 50Hz		
Capacity Cooling(T1)	kw	67.2	72.8	78.4
Capacity Cooling(T3)	kw	67.2	69.1	71.0
Capacity Heating(T1)	kw	75.0	81.5	88.0
Input power Cooling(T1)	kw	16.53	18.75	20.97
Input power Heating	kw	17.16	19.27	21.38
EER Cooling(T1)	W/W	4.07	3.88	3.74
COP Heating	W/W	4.37	4.23	4.12
Air flow late	m^3/h	11,100×3	11,100×3	11,100×3
Sound pressure level *2 Cooling	dB(A)	61	62	62
Sound pressure level *2 Heating	dB(A)	61	62	63
Maximum external static pressure	Pa	80	80	80
Compresor motor output	kw	3.9×3	3.9×3	3.9×3
Heat exchanger fin		Blue fin	Blue fin	Blue fin
Dimensions Height	mm	1,690	1,690	1,690
Dimensions Width	mm	930×3	930×3	930×3
Dimensions Depth	mm	765	765	765
Weight	kg	220+220+220	220+220+220	220+220+220
Refrigerant charge	kg	11.2×3	11.2×3	11.2×3
Connection pipe diameter Liquid	mm	15.88	15.88	15.88
Connection pipe diameter Gas	mm	34.92	34.92	34.92
Operation temperature range Cooling	°CDB	-5 to 52	-5 to 52	-5 to 52
Operation temperature range Heating	°CWB	-20 to 21	-20 to 21	-20 to 21

Note : Specifications are based on the following conditions.
Cooling (T1) : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Cooling (T3) : Indoor temperature of 29°CDB / 19°CWB, and outdoor temperature of 46°CDB / 24°CWB.
Heating ： Indoor temperature of 20°CDB /(15°CWB), and outdoor temperature of 7°CDB / 6°CWB.]
Pipe length : 7.5m. Height difference between outdoor unit and indoor unit : 0m.

*1 Minimum connectable indoor unit number is 2.
However ARXC72 and ARXC90 can be used signal connection.

*2 The noise value is the value when measured in an anechoic room.
When measured in the actual installed state, surrounding noise and reflections are received and the measured value is usually larger than the indicated value.

Indoor Unit Lineup

Comprehensive range of indoor units of variety design and capacity ranges available which can be selected to suit any air conditioning needs.

12 Types, 55 Models, Capacity range from 2.2kW to 25.0kW

		Capacity range (kW)	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	12.5	14.0	18.0	22.4	25.0
		Model code	7	9	12	14	18	24	30	36	45	54	60	72	90
Cassette	Compact Cassette		AUXB07GALH	AUXB09GALH	AUXB12GALH	AUXB14GALH	AUXB18GALH	AUXB24GALH							
	Cassette						AUXD18GALH	AUXD24GALH	AUXA30GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH			
Duct	Low Static Pressure Duct		ARXB07GALH	ARXB09GALH	ARXB12GALH	ARXB14GALH	ARXB18GALH	ARXB24GALH	ARXB30GALH	ARXB36GALH	ARXB45GALH				
	Slim Duct (Drain pump internal)		ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH	ARXD18GALH	ARXD24GALH							
	Medium Static Pressure Duct							ARXA24GALH	ARXA30GALH	ARXA36GALH	ARXA45GALH				
	High Static Pressure Duct									ARXC36GATH	ARXC45GATH		ARXC60GATH	ARXC72GATH	ARXC90GATH
Floor	Floor (*Same as Ceiling models)				ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH							
	Concealed Floor (*Same as Low Static Pressure Duct models)		ARXB07GALH	ARXB09GALH	ARXB12GALH	ARXB14GALH	ARXB18GALH								
	Slim Concealed Floor (*Same as Slim Duct models)		ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH	ARXD18GALH	ARXD24GALH							
Ceiling	Ceiling				ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH	ABHA30GATH	ABHA36GATH	ABHA45GATH	ABHA54GATH			
Wall Mounted	Wall Mounted		ASHA07GACH	ASHA09GACH	ASHA12GACH	ASHA14GACH	ASHA18GACH	ASHA24GACH	ASHA30GACH						
	Wall Mounted (EEV external)		ASHE07GACH	ASHE09GACH	ASHE12GACH	ASHE14GACH									

With this model, connection of EV kit is necessary.

Compact Cassette

Models

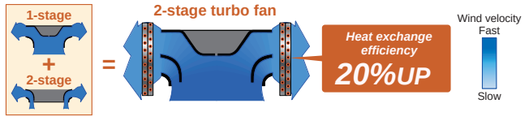
AUXB07GALH
AUXB09GALH
AUXB12GALH
AUXB14GALH
AUXB18GALH
AUXB24GALH

Compact size panel design
that fits standard ceiling panel (600x600mm)

2-stage turbo fan

High efficiency design by 2 stage structure

An evenly spread air distribution across the heat exchanger is possible due to the new 2 stage turbo fan which produces two separate airflow streams.



Previous turbo fan

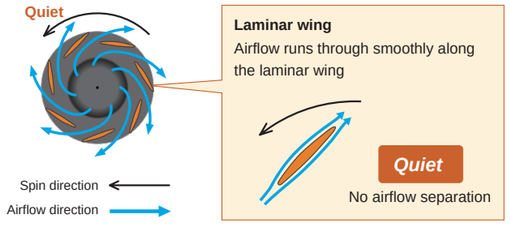
In the case of a previous fan, the air outlet range was narrow as the airflow moved to the motor side which meant the velocity of air passing through the heat exchanger was uneven.

Quiet quality

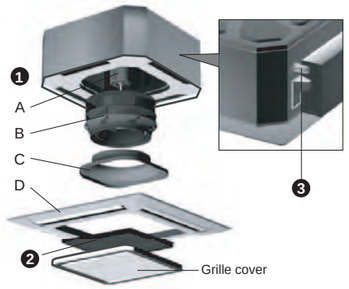
Optimization of wing form (laminar wing type) and wing number (7 blades each)

Designed by CFD-analysis (fluid) simulations

Adoption of laminar wing



Improvement of the airflow distribution



❶ Maintenance of fan motor and fan

Maintenance of the fan motor and fan can be done easily after taking off the panel as the bell mouth of the fan can be removed easily.

A : Fan motor B : 2-stage turbo fan
C : Bell-mouth D : Panel

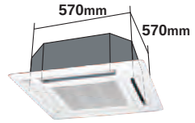
❷ Long life filter : standard equipment

❸ Adaptation of transparent drainage parts

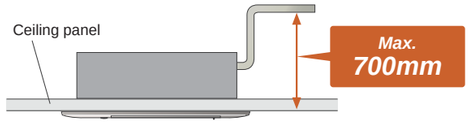
During installation, maintenance and operation, the drain pump and kit can be checked easily.

Compact design

Worlds first 24,000Btu model in the compact cassette category
(Easy installation by taking off ceiling panel of 600 x 600 size)



High lift drain pump



High ceiling mode

The compact cassette can be installed up to a height of 3.0m (12/14/18/24).

Model code	The maximum height from floor to ceiling (m)	
	Standard mode	**High ceiling mode**
07	2.7	–
09	2.7	–
12	2.7	3.0
14	2.7	3.0
18	2.7	3.0
24	2.7	3.0

Optional parts

Air Outlet Shutter Plate : UTR-YDZB
Insulation Kit for High Humidity : UTZ-KXGC

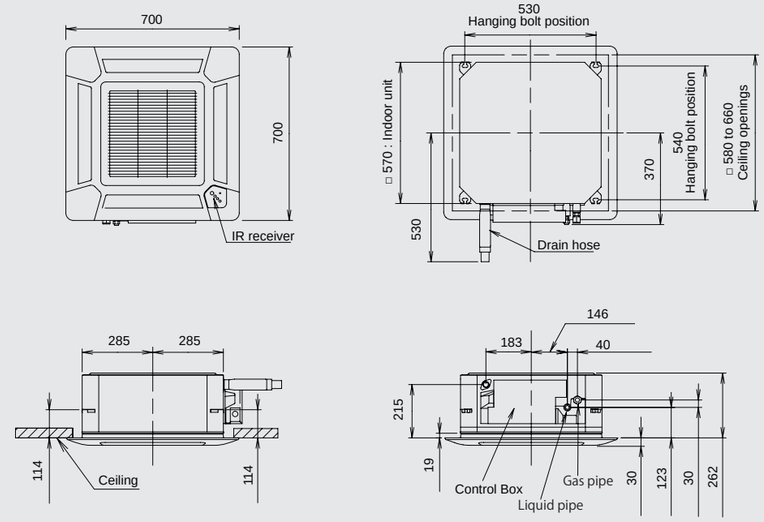
Specifications

Model name			AUXB07GALH	AUXB09GALH	AUXB12GALH	AUXB14GALH	AUXB18GALH	AUXB24GALH
Power source			230V ~, 50Hz					
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
	Heating		2.8	3.2	4.1	5.0	6.3	8.0
Input power		W	25	25	29	35	36	84
Airflow rate	High	m³/h	540	550	600	680	710	1,030
	Med		450	450	530	590	580	830
	Low		350	350	390	390	400	450
Sound pressure level	High	dB(A)	34	35	37	38	41	50
	Med		30	30	34	34	35	44
	Low		25	25	27	27	27	30
Dimensions (H x W x D)		mm	245 x 570 x 570					
Weight		kg	15				17	
Connection pipe diameter	Liquid (Flare)	mm	ø6.35				ø9.52	
	Gas (Flare)		ø12.70				ø15.88	
	Drain		ø25 (I.D) ; ø32 (O.D.)					
Cassette Grille	Model name		UTG-UFGC-W					
	Dimensions (H x W x D)	mm	50 x 700 x 700					
	Weight	kg	2.6					

Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27˚CDB / 19˚CWB, and outdoor temperature of 35˚CDB / 24˚CWB.
Heating : Indoor temperature of 20˚CDB / (15˚CWB), and outdoor temperature of 7˚CDB / 6˚CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

Dimensions (Unit : mm)

Models: AUXB07 / AUXB09 / AUXB12 / AUXB14 / AUXB18 / AUXB24



Cassette

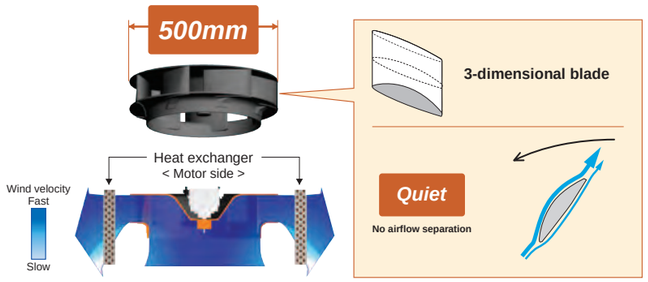
Models

AUXD18GALH
AUXD24GALH
AUXA30GALH
AUXA36GALH
AUXA45GALH
AUXA54GALH

Powerful, wide airflow and quiet operation

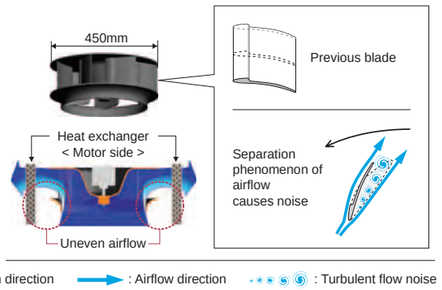
High efficiency turbo fan with 3-dimensional blade

High efficiency airflow distribution has been achieved by the introduction of a 3 dimensional blade which increases the air passing over the heat exchanger.



Previous turbo fan

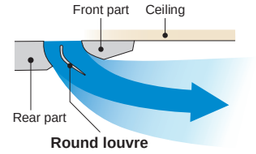
Air passing through the heat exchanger was uneven and the air would only flow close to the ceiling.

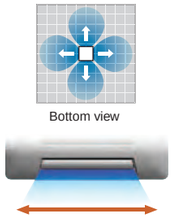


: Spin direction : Airflow direction : Turbulent flow noise

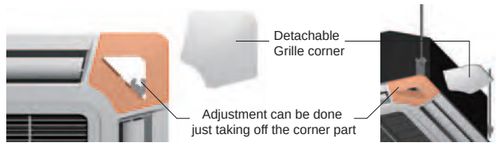
Improvement of the airflow distribution

The louvre design distributes air leaving a space between the chassis and the ceiling allowing far and wide air flow distribution.

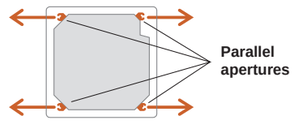




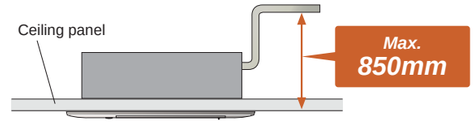
Adjustment of hanger position is possible after installation



One way aperture installation



High lift drain pump



High ceiling mode

This cassette can be installed up to a height of 4.2m (36/45/54).

Model code	The maximum height from floor to ceiling (m)	
	Standard mode	**High ceiling mode**
18	3.0	3.5
24	3.0	3.5
30	3.2	3.6
36	3.2	4.2
45	3.2	4.2
54	3.2	4.2

Optional parts

IR Receiver Unit :	UTY-LRHGB1
Air Outlet Shutter Plate :	UTR-YDZC
Panel Spacer :	UTG-BGYA-W
Insulation Kit for High Humidity :	UTZ-KXGA / UTZ-KXGB
Wide Panel :	UTG-AGYA-W

Specifications

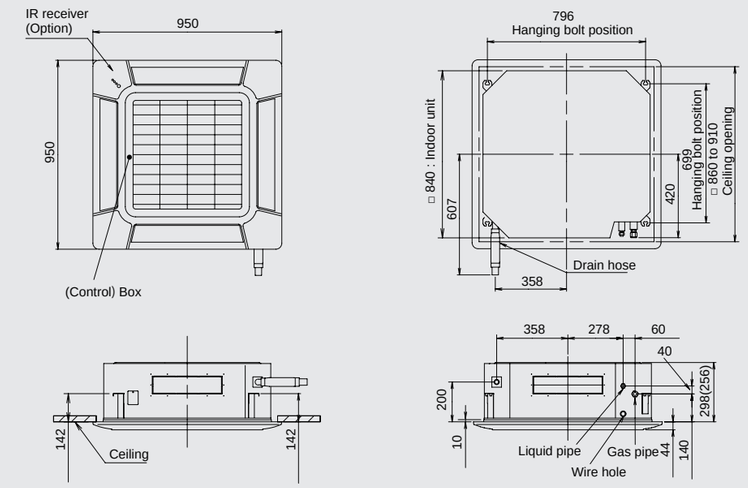
Model name			AUXD18GALH	AUXD24GALH	AUXA30GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH
Power source			230V ~, 50Hz					
Capacity	Cooling	kW	5.6	7.1	9.0	11.2	12.5	14.0
	Heating		6.3	8.0	10.0	12.5	14.0	16.0
Input power		W	39	46	59	80	99	119
Airflow rate	High	m³/h	1,150	1,280	1,600	1,800	1,900	2,000
	Med		940	1,040	1,300	1,300	1,370	1,370
	Low		870	870	1,100	1,100	1,100	1,100
Sound pressure level	High	dB(A)	36	38	40	44	46	47
	Med		30	33	38	38	39	39
	Low		29	29	33	33	33	33
Dimensions (H x W x D)		mm	246 x 840 x 840		288 x 840 x 840			
Weight		kg	22		27			
Connection pipe diameter	Liquid (Flare)	mm	ø9.52					
	Gas (Flare)		ø15.88			ø19.05		
	Drain		ø25 (I.D.) ; ø32 (O.D.)					
Cassette Grille	Model name		UTG-UGGA-W					
	Dimensions (H x W x D)	mm	50 x 950 x 950					
	Weight	kg	5.5					

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27˚CDB / 19˚CWB, and outdoor temperature of 35˚CDB / 24˚CWB.
Heating : Indoor temperature of 20˚CDB / (15˚CWB), and outdoor temperature of 7˚CDB / 6˚CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

Dimensions (Unit : mm) ( ) : AUXD18 / AUXD24

Models: AUXD18 / AUXD24 (Slim type)
AUXA30 / AUXA36 / AUXA45 / AUXA54



Low Static Pressure Duct / Concealed Floor

Models

ARXB07GALH
ARXB09GALH
ARXB12GALH
ARXB14GALH
ARXB18GALH

Small and compact indoor unit suitable for many applications

ARXB07GALH
ARXB09GALH

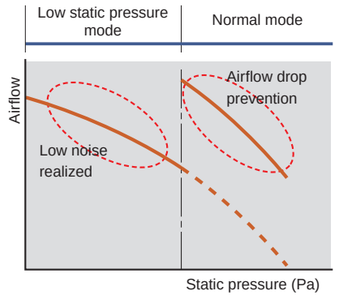
ARXB12GALH
ARXB14GALH
ARXB18GALH

Concealed Floor

Low noise level

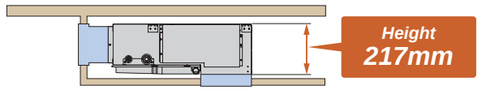
A low noise level has been achieved for each capacity

Model		7	9	12	14	18
Static pressure range	Pa	0 to 50				
Noise level (Low speed)	dB(A)	24	27	25	30	30



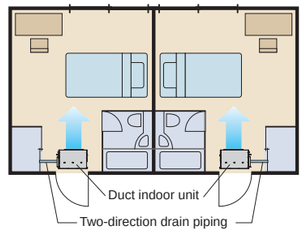
Compact design

Ultra-slim duct air conditioner for easy installation



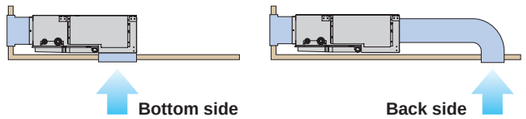
Slim size (217mm) allows installation even where the space behind the ceiling is narrow.

Two-direction drain piping



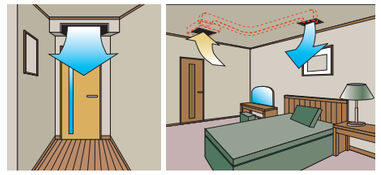
Air-intake

Air intake direction can be selected to match the installation site.



Flexible installation

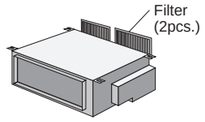
Ceiling concealed



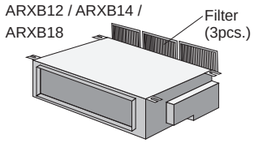
Floor concealed

Filter (Accessory)

ARXB07 / ARXB09



ARXB12 / ARXB14 / ARXB18



Optional parts

Remote Sensor Unit : UTY-XSZX
IR Receiver Unit : UTB-YWC
Drain Pump Unit : UTZ-PX1BBA

Specifications

Model name			ARXB07GALH	ARXB09GALH	ARXB12GALH	ARXB14GALH	ARXB18GALH
Power source			230V ~, 50Hz				
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6
	Heating		2.8	3.2	4.0	5.0	6.3
Input power		W	46	55	63	90	96
Airflow rate	High	m³/h	370	440	590	800	890
	Med		310	370	500	750	810
	Low		280	340	450	700	730
Static pressure range		Pa	0 to 50	0 to 50	0 to 50	0 to 50	0 to 50
Standard static pressure			25	25	25	25	25
Sound pressure level	High	dB(A)	29	31	30	33	36
	Med		26	29	28	32	34
	Low		24	27	25	30	30
Dimensions (H x W x D)		mm	217 x 663 x 595		217 x 953 x 595		
Weight		kg	15		22		23
Connection pipe diameter	Liquid (Flare)	mm	ø6.35				ø9.52
	Gas (Flare)		ø12.70				ø15.88
	Drain		ø25 (I.D.) ; ø32 (O.D.)				

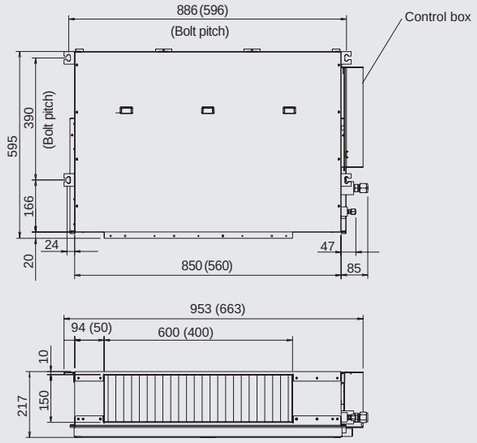
Note : Specifications are based on the following conditions.

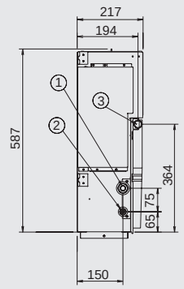
Cooling : Indoor temperature of 27˚CDB / 19˚CWB, and outdoor temperature of 35˚CDB / 24˚CWB.
Heating : Indoor temperature of 20˚CDB / (15˚CWB), and outdoor temperature of 7˚CDB / 6˚CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.

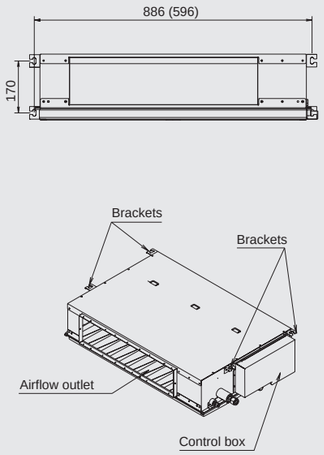
Dimensions (Unit : mm) ( ) : AR7 / AR9

Models: ARXB07 / ARXB09 / ARXB12 / ARXB14 / ARXB18

*Service accessibility must be allowed for when installing the product.
Please consult the installation manual for the necessary service access size.







① Refrigerant piping flare connection (Gas)
② Refrigerant piping flare connection (Liquid)
③ Drain piping connection

Slim Duct / Slim Concealed Floor

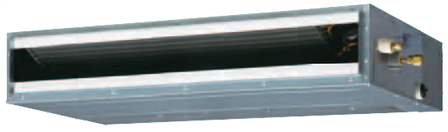
Models (Drain pump internal model)

ARXD07GALH
ARXD09GALH
ARXD12GALH
ARXD14GALH
ARXD18GALH
ARXD24GALH

Slim design and wide range of static pressure for flexible installation.

ARXD07GALH ARXD12GALH
ARXD09GALH ARXD14GALH

ARXD18GALH

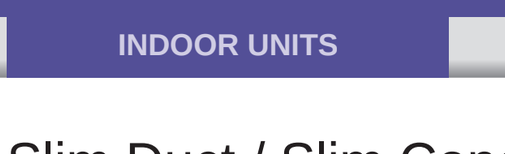


ARXD24GALH

Slim Concealed Floor

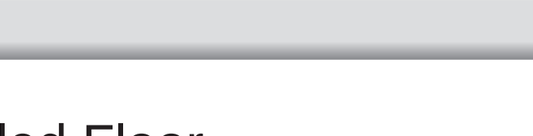
Slim design

This model is slim design, it can install at the place where a ceiling is narrow.

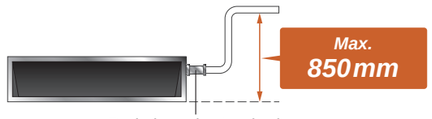


Air-intake

Air intake direction can be selected to match the installation site.



High lift drain pump



Drain hose is standard accessory

Selectable with a wide range of static pressure

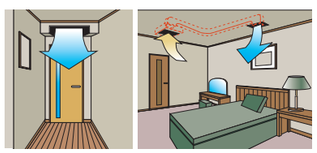
By using DC fan motor, it is possible to change of static pressure range 0 to 90Pa.
The change of static pressure range is possible by remote controller.

Static pressure range
0 to 90 Pa

*24 model is 0 to 50Pa

Flexible installation

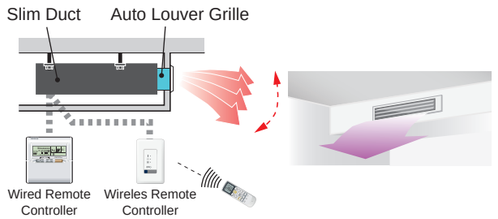
Ceiling concealed



Floor concealed

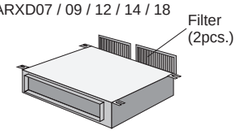
Auto Louver Grille Kit (Option)

Simple flat Auto Louver will provide comfort airflow and harmonize with luxury interior.

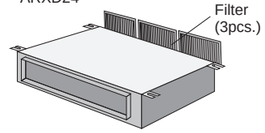


Filter (Accessory)

ARXD07 / 09 / 12 / 14 / 18



ARXD24



Optional parts

Remote Sensor Unit :	UTY-XSZX
IR Receiver Unit :	UTB-YWC
Auto Louver Grille Kit :	UTD-GXSA-W (for ARXD07/09/12/14GALH)
	UTD-GXSB-W (for ARXD18GALH)
	UTD-GXSC-W (for ARXD24GALH)

Specifications

Model name			ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH	ARXD18GALH	ARXD24GALH
Power source			230V ~, 50Hz					
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
	Heating		2.8	3.2	4.0	5.0	6.3	8.0
Input power		W	44	50	54	92	83	122
Airflow rate	High	m³/h	550	600	600	800	940	1,330
	Med		490	550	510	710	840	1,240
	Low		440	480	450	610	750	1,100
Static pressure range		Pa	0 to 90	0 to 90	0 to 90	0 to 90	0 to 90	0 to 50
Standard static pressure			25	25	25	25	25	25
Sound pressure level	High	dB(A)	28	29	30	34	34	35
	Med		25	26	27	32	32	32
	Low		22	24	24	28	28	29
Dimensions (H x W x D)		mm	198 x 700 x 620				198 x 900 x 620	198 x 1,100 x 620
Weight		kg	17		18		22	26
Connection pipe diameter	Liquid (Flare)	mm	ø6.35				ø9.52	
	Gas (Flare)		ø12.70				ø15.88	
	Drain		ø25 (I.D.) ; ø32 (O.D.)					

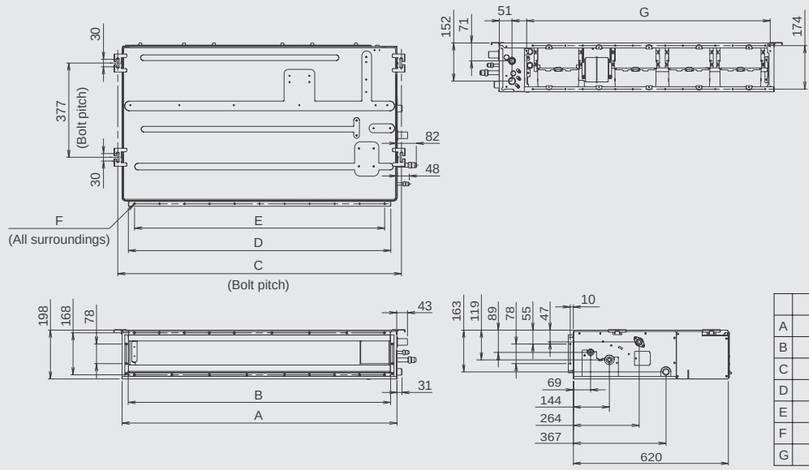
Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27˚CDB / 19˚CWB, and outdoor temperature of 35˚CDB / 24˚CWB.
Heating : Indoor temperature of 20˚CDB / (15˚CWB), and outdoor temperature of 7˚CDB / 6˚CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.

Dimensions (Unit : mm)

Models: ARXD07 / ARXD09 / ARXD12 / ARXD14 / ARXD18 / ARXD24

*Service accessibility must be allowed for when installing the product.
Please consult the installation manual for the necessary service access size.



	ARXD07-14	ARXD18	ARXD24
A	700	900	1100
B	650	850	1050
C	734	934	1134
D	650	850	1050
E	P100x6=600	P100x8=800	P100x10=1000
F	18xØ5	22xØ5	26xØ5
G	574	774	974

Low / Medium Static Pressure Duct

Models [Low Static Pressure Duct]

ARXB24GALH
ARXB30GALH
ARXB36GALH
ARXB45GALH

Indoor units suitable for quiet rooms such as a hotel or a bedroom

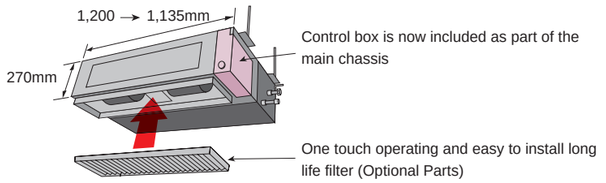
Models [Medium Static Pressure Duct]

ARXA24GALH
ARXA30GALH
ARXA36GALH
ARXA45GALH

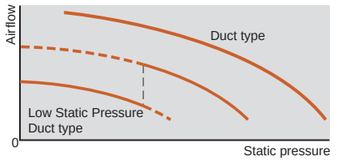
Slim Compact design allows for easy installation in narrow ceiling spaces up to 270mm

Slim & Compact design

In the case of bottom return air connection, not only does the indoor unit design allow for installation in a narrow ceiling space of up to 270mm, Further space savings have been achieved by mounting the electrical control box internally inside the chassis.


1,200 → 1,135mm
270mm
Control box is now included as part of the main chassis
One touch operating and easy to install long life filter (Optional Parts)

Line-up of low-noise and high-power models, compatible with a wide range of static pressure



Low Static Pressure Duct type

Optimum model for hotels or bedrooms

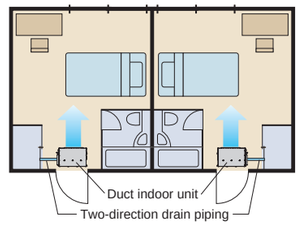
An ultra low-noise model that achieves a quiet interior. Perfect for hotels or bedrooms with limited air duct installation space. Two different levels can be selected according to the static pressure range.

Duct type

Powerful model with a flexible design

With a powerful motor, appropriate for a wide range of static pressure. Flexible air duct installation is possible in a large space such as an office.

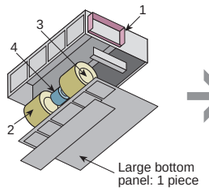
Two-direction drain piping



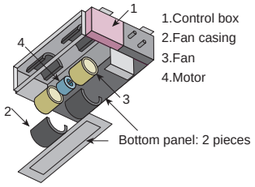
Easy maintenance

See below for the case of rear suction type

Previous model



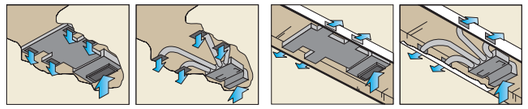
New model



Structural improvement is attained by making the bottom panel two pieces, front and rear. The internal fan casing is also manufactured in two pieces, namely upper and lower. The maintenance of the motor and fan can be easily carried out by removing the rear panel and the lower part of the casing while leaving the main chassis installed.

Installation styles

Embedded in Ceiling **Hanging from Ceiling**



Optional parts

Remote Sensor Unit :	UTY-XSZX	Flange (Round) :	UTD-RF204
Long Life Filter :	UTD-LF25NA	IR Receiver Unit :	UTB-YWC
Flange (Square) :	UTD-SF045T	Drain Pump Unit :	UTZ-PX1NBA

Specifications

Model name			ARXB24GALH	ARXB30GALH	ARXB36GALH	ARXB45GALH	ARXA24GALH	ARXA30GALH	ARXA36GALH	ARXA45GALH
Power source			230V ~, 50Hz				230V ~, 50Hz			
Capacity	Cooling	kW	7.1	9.0	11.2	12.5	7.1	9.0	11.2	12.5
	Heating		8.0	10.0	12.5	14.0	8.0	10.0	12.5	14.0
Input power		W	145	198	253	338	190	188	312	312
Airflow rate	High	m³/h	1,100	1,410	1,710	1,970	1,280	1,280	1,720	1,720
	Med		920	1,280	1,600	1,790	1,210	1,210	1,670	1,670
	Low		810	1,150	1,470	1,670	1,130	1,130	1,600	1,600
Static pressure range		Pa	0 to 80	0 to 80	0 to 80	0 to 80	30 to 150	30 to 150	30 to 150	30 to 150
Standard static pressure			40	50	50	60	100	100	100	100
Sound pressure level	High	dB(A)	31	34	37	41	38	40	43	43
	Med		27	32	35	38	36	38	41	41
	Low		25	29	33	36	34	36	39	39
Dimensions (H x W x D)		mm	270 x 1,135 x 700				270 x 1,135 x 700			
Weight		kg	39	42			39	42		
Connection pipe diameter	Liquid (Flare)	mm	ø9.52				ø9.52			
	Gas (Flare)		ø15.88		ø19.05		ø15.88		ø19.05	
	Drain		ø25 (I.D.) ; ø32 (O.D.)				ø25 (I.D.) ; ø32 (O.D.)			

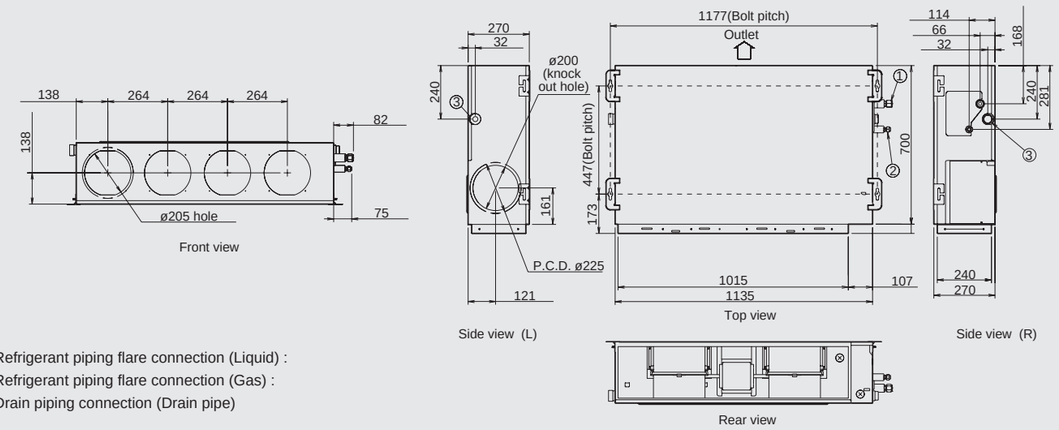
Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27˚CDB / 19˚CWB, and outdoor temperature of 35˚CDB / 24˚CWB.
Heating : Indoor temperature of 20˚CDB / (15˚CWB), and outdoor temperature of 7˚CDB / 6˚CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.

Dimensions (Unit : mm)

Models: ARXB24 / ARXB30 / ARXB36 / ARXB45
ARXA24 / ARXA30 / ARXA36 / ARXA45

*Service accessibility must be allowed for when installing the product.
Please consult the installation manual for the necessary service access size.



① Refrigerant piping flare connection (Liquid) :
② Refrigerant piping flare connection (Gas) :
③ Drain piping connection (Drain pipe)

High Static Pressure Duct

Models

ARXC36GATH
ARXC45GATH
ARXC60GATH
ARXC72GATH
ARXC90GATH

These indoor units allow for high airflow quantities

ARXC36GATH
ARXC45GATH
ARXC60GATH

ARXC72GATH
ARXC90GATH

Specifications

Model name			ARXC36GATH	ARXC45GATH	ARXC60GATH	ARXC72GATH	ARXC90GATH
Power source			230V ~, 50Hz				
Capacity	Cooling	kW	11.2	12.5	18.0	22.4	25.0
	Heating		12.5	14.0	20.0	25.0	28.0
Input power		W	405	715	730	1,110	1,250
Airflow rate	High	m³/h	2,600	3,500	3,500	3,900	4,300
	Med		1,950	3,000	3,000	3,300	4,000
	Low		1,450	2,460	2,460	3,000	3,500
Static pressure range		Pa	100 to 200	100 to 250	100 to 250	50 to 300	100 to 300
Standard static pressure			100	100	100	260	250
Sound pressure level	High	dB(A)	45	49	49	51	53
	Med		38	45	45	48	51
	Low		32	42	42	45	49
Dimensions (H x W x D)		mm	400 x 1,050 x 500			450 x 1,550 x 700	
Weight		kg	43	46		83	85
Connection pipe diameter	Liquid	mm	ø9.52 (Flare)			ø12.70 (Brazing)	
	Gas		ø19.05 (Flare)			ø22.22 (Brazing)	
	Drain		ø25 (I.D.) ; ø32 (O.D.)				

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27˚CDB / 19˚CWB, and outdoor temperature of 35˚CDB / 24˚CWB.
Heating : Indoor temperature of 20˚CDB / (15˚CWB), and outdoor temperature of 7˚CDB / 6˚CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.

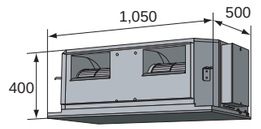
Easy installation (Compact size & Lightweight)

Models : ARXC36

A compact size and lightweight indoor unit has been developed by reducing the basic chassis and the overall material weight.

Volume 47.5% down

Weight 42% down

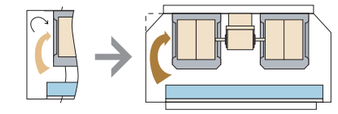


ARXC36GATH : 43kg (unit: mm)

Low noise

Models : ARXC36 / ARXC45 / ARXC60

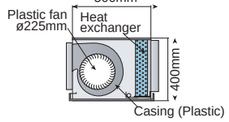
Cutting off the corners of the conventional indoor unit front panel and fan casing, has enabled less turbulent air flow. Low noise is realized by adopting a plastic case and a plastic fan.



Previous model — New model (ARXC36GATH)

ARXC36GATH : Plastic fan [45dB(A)]

* Model : Material
(At 100Pa : Actual noise measurement value)

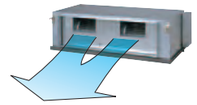


500mm

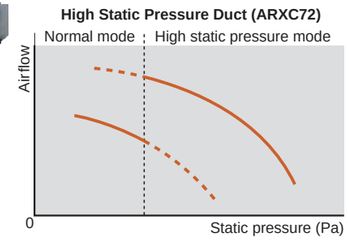
Static pressure selection

Models : ARXC72 / ARXC90

2 Types of static pressure mode are selectable.



Max. 300Pa



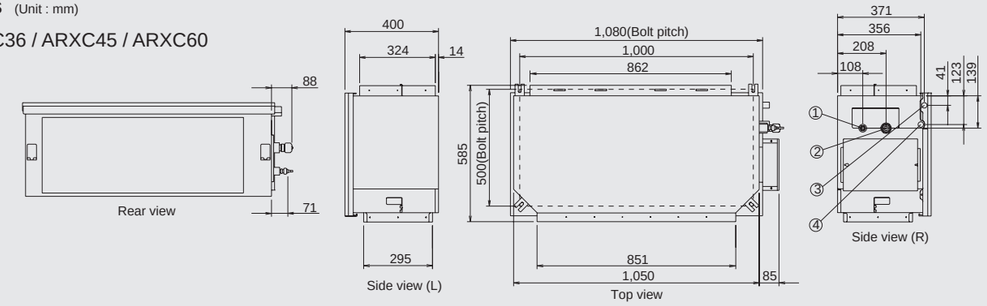
The adoption of a single phase fan motor allows 3 steps fan speed control

Optional parts

Long-Life Filter : UTD-LF60KA (For ARXC36 / 45 / 60)
IR Receiver Unit : UTB-YWC
Remote Sensor Unit : UTY-XSZX

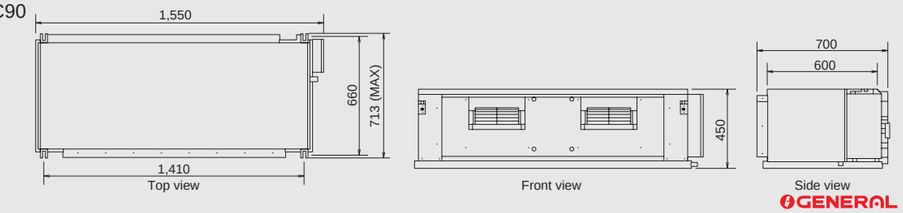
Dimensions (Unit : mm)

Models: ARXC36 / ARXC45 / ARXC60



① Refrigerant piping flare connection (Liquid)
② Refrigerant piping flare connection (Gas)
③ Drain piping connection

Models: ARXC72 / ARXC90



Floor / Ceiling

Models

ABHA12GATH
ABHA14GATH
ABHA18GATH
ABHA24GATH

The slim and lightweight design allow the unit to be suspended from the ceiling or installed on the floor.
This type suits many room designs

Floor standing

Flexible installation

Example for floor installation

Floor console

Example for ceiling installation

Under ceiling

Specifications

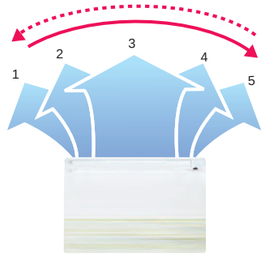
Model name			ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH
Power source			230V ~, 50Hz			
Capacity	Cooling	kW	3.6	4.5	5.6	7.1
	Heating		4.0	5.0	6.3	8.0
Input power		W	30	42	74	99
Airflow rate	High	m^3/h	660	780	1,000	1,000
	Med		570	640	720	820
	Low		490	550	580	680
Sound pressure level	High	dB(A)	36	40	46	47
	Med		32	36	39	42
	Low		28	34	35	37
Dimensions (H x W x D)		mm	199 x 990 x 655			
Weight		kg	25	26	26	27
Connection pipe diameter	Liquid (Flare)	mm	ø6.35		ø9.52	
	Gas (Flare)		ø12.70		ø15.88	
	Drain		ø25 (I.D.) ; ø32 (O.D.)			

Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27˚CDB / 19˚CWB, and outdoor temperature of 35˚CDB / 24˚CWB.
Heating : Indoor temperature of 20˚CDB / (15˚CWB), and outdoor temperature of 7˚CDB / 6˚CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.
Voltage : 230 [V].

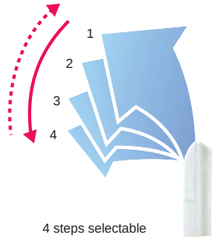
Double auto swing

A combination of up/down and right/left directional swing allows three-dimensional air direction control.

RIGHT and LEFT SWING



UP and DOWN SWING



4 steps selectable

High power DC fan motor

- High power
- Wide rotation range
- High efficiency

Super vane

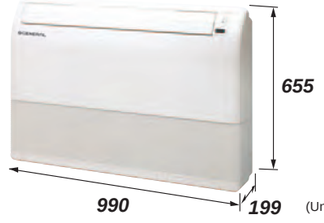
Double Louvre Super vane with newly developed special configuration boosts airflow sending cool air quickly to every corner of the room.

Auto-closing louvre

When operation is stopped, the louvres will automatically close.
(This function is available on all non-ducted models.)

Compact design

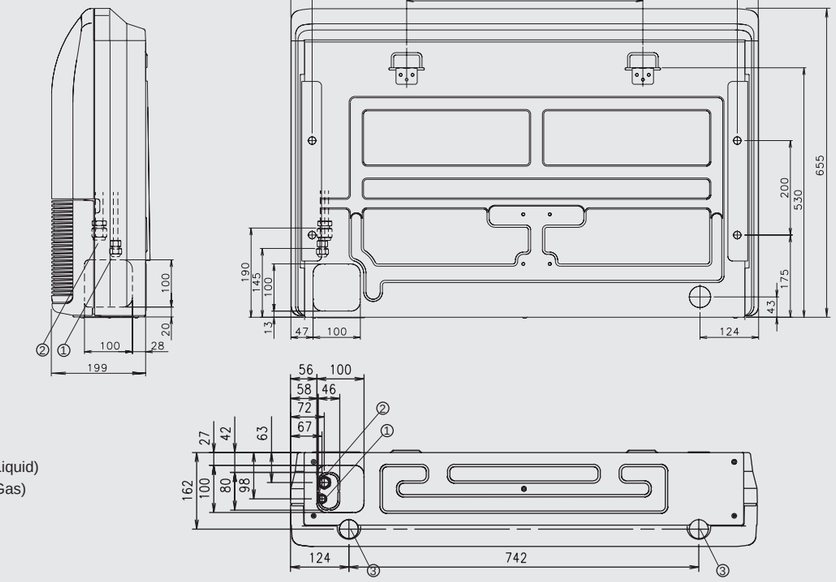
Symmetrical, slim and compact design.



(Unit : mm)

Dimensions (Unit : mm)

Models: ABHA12 / ABHA14 / ABHA18 / ABHA24



① Refrigerant piping flare connection (Liquid)
② Refrigerant piping flare connection (Gas)
③ Drain piping connection

Ceiling

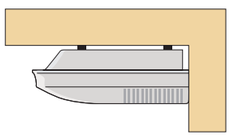
Models

ABHA30GATH
ABHA36GATH
ABHA45GATH
ABHA54GATH

Easily concealed in any installation

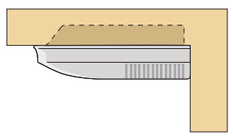
Installation

Open



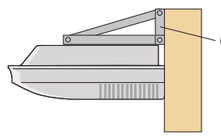
General installation pattern which suspends the indoor unit from the ceiling.

Concealed



Installation pattern where part of the indoor unit is embedded into the ceiling.

Wall mounted



Installation which fixes the indoor unit to the wall by the use of wall brackets (Field supplied). This type of installation can be used when the ceiling space is insufficient.

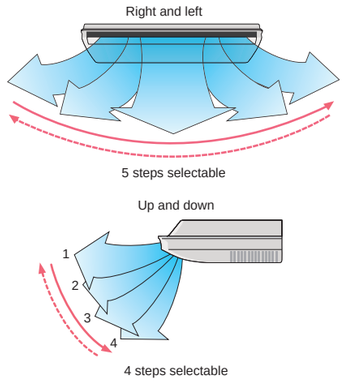
Specifications

Model name			ABHA30GATH	ABHA36GATH	ABHA45GATH	ABHA54GATH
Power source			230V ~, 50Hz			
Capacity	Cooling	kW	9.0	11.2	12.5	14.0
	Heating		10.0	12.5	14.0	16.0
Input power		W	66	85	131	180
Airflow rate	High	m^3/h	1,630	1,690	2,010	2,270
	Med		1,370	1,400	1,600	1,780
	Low		1,140	1,170	1,230	1,280
Sound pressure level	High	dB(A)	42	45	48	51
	Med		38	38	42	45
	Low		33	34	35	36
Dimensions (H x W x D)		mm	240 x 1,660 x 700			
Weight		kg	46	48		
Connection pipe diameter	Liquid (Flare)	mm	ø9.52	ø9.52		
	Gas (Flare)		ø15.88	ø19.05		
	Drain		ø25 (I.D.) ; ø32 (O.D.)			

Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27˚CDB / 19˚CWB, and outdoor temperature of 35˚CDB / 24˚CWB.
Heating : Indoor temperature of 20˚CDB / (15˚CWB), and outdoor temperature of 7˚CDB / 6˚CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.
Voltage : 230 [V].

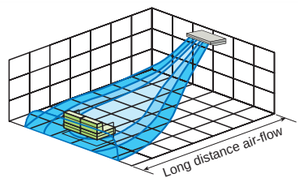
Double auto swing and wide airflow

Auto airflow direction and auto swing



Long airflow

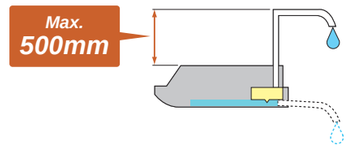
Long Airflow ensures comfort to every corner of a large room.



Slim & Compact design

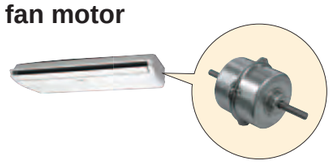
High lift drain pump

Optional drain pump unit allows flexible installation design.



High power DC fan motor

- High power
- Wide rotation range
- High efficiency



Long-life filter

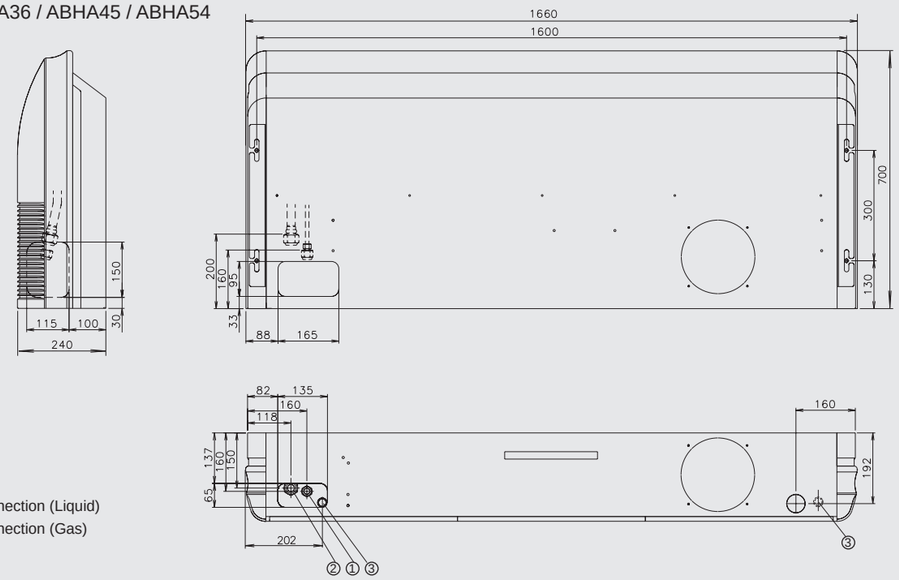
High Efficiency long-life filter doubles the life of the filter compared to standard filters.

Optional parts

Drain Pump Unit : UTR-DPB24T

Dimensions (Unit : mm)

Models: ABHA30 / ABHA36 / ABHA45 / ABHA54



① Refrigerant piping flare connection (Liquid)
② Refrigerant piping flare connection (Gas)
③ Drain piping connection

Wall Mounted

Models (EEV internal model)
ASHA07GACH
ASHA09GACH
ASHA12GACH
ASHA14GACH

Models (EEV external model)
ASHE07GACH
ASHE09GACH
ASHE12GACH
ASHE14GACH

Compact and Stylish design indoor

Compact size

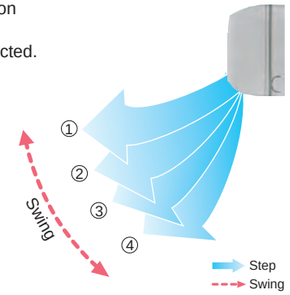
Powerful output even compact design

Width ***790mm***

Though the indoor unit is compact, it features a large, high pressure cross fan (90mm diameter) in a centre mounted configuration and a Lambda type heat exchanger to provide plenty of power.

Auto swing louvre

The Auto Swing Louvre function ensures that the air direction corresponds to the mode selected.



Filter features

High quality air conditioning by incorporation of high performance filter.

Long-life* Ion Deodorization Filter

The filter deodorizes by powerfully decomposing absorbed odors using the oxidizing and reducing effects of ions generated by the ultra-fine-particle ceramic.

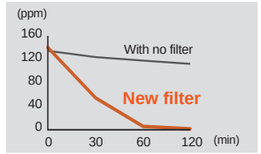
(*The filter can be used for approx. 3 years if it is washed under water to restore its surface action when it is dirty.)

Apple-catechin Filter

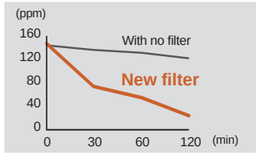
Fine dust, invisible mold spores, and harmful microorganisms are absorbed onto the filter by static electricity, and further growth is inhibited and deactivated by the polyphenol extracted from apples.

Deodorizing effect **(Odor reduction rate)**

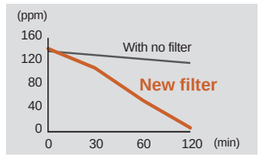
Ammonia



Trimethylamine



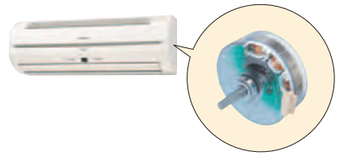
Hydrogen sulfate



Testing organization :
Environmental Sanitary Inspection Center
Test method :
Deodorization Test

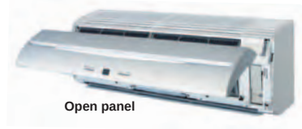
New style high power DC fan motor

- High power
- Wide rotation range
- High efficiency
- Compact size



Easy maintenance

Easy maintenance has been realized as the front panel can removed for easy access.



Symmetrical design

Symmetrical, clean design that suits all interiors.

Specifications

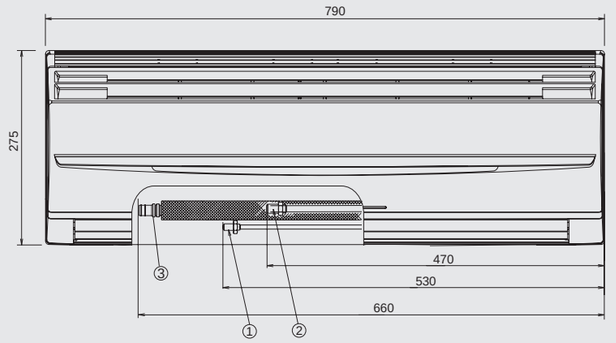
Model name			ASHA07GACH	ASHA09GACH	ASHA12GACH	ASHA14GACH	ASHE07GACH	ASHE09GACH	ASHE12GACH	ASHE14GACH
Power source			230V ~, 50Hz				230V ~, 50Hz			
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	2.2	2.8	3.6	4.5
	Heating		2.8	3.2	4.1	5.0	2.8	3.2	4.1	5.0
Input power		W	17	18	22	34	15	16	21	34
Airflow rate	High	m³/h	490	500	560	670	490	500	560	680
	Med		450	450	480	490	450	450	480	490
	Low		370/420*1	370/420*1	420	420	370/420*1	370/420*1	420	420
Sound pressure level	High	dB(A)	35	36	39	44	34	35	38	43
	Med		33	33	35	37	32	32	34	35
	Low		27/31*1	27/31*1	31	32	26/30*1	26/30*1	30	30
Dimensions (H x W x D)		mm	275 x 790 x 215				275 x 790 x 215			
Weight		kg	9				9			
Connection pipe diameter	Liquid (Flare)	mm	ø6.35				ø6.35			
	Gas (Flare)		ø12.70				ø12.70			
	Drain		ø13.8(I.D.) ; ø15.8-ø16.7(O.D.)				ø13.8(I.D.) ; ø15.8-ø16.7(O.D.)			
EV Kit (option)			—				UTR-EV09XB		UTR-EV14XB	

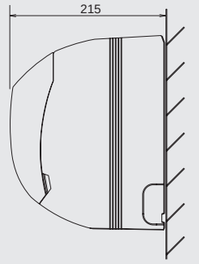
Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 27˚CDB / 19˚CWB, and outdoor temperature of 35˚CDB / 24˚CWB.
Heating : Indoor temperature of 20˚CDB / (15˚CWB), and outdoor temperature of 7˚CDB / 6˚CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.
Voltage : 230 [V].
*1 : This value is under cooling operation.

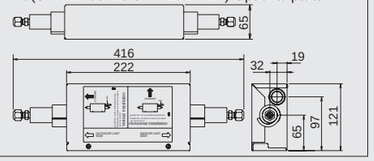
Dimensions (Unit : mm)

Models: ASHA07 / ASHA09 / ASHA12 / ASHA14
ASHE07 / ASHE09 / ASHE12 / ASHE14





EV kit (UTR-EV09XB/ UTR-EV14XB) Optional parts:



① Refrigerant pipe flare connection (Liquid)
② Refrigerant pipe flare connection (Gas)
③ Drain piping connection

Wall Mounted

Models

ASHA18GACH
ASHA24GACH
ASHA30GACH

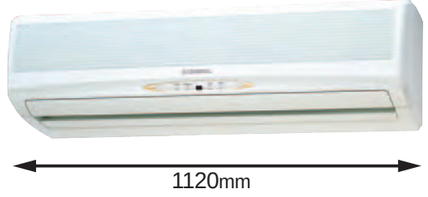
Simple & Elegant Appearance Design

Compact & Slim design

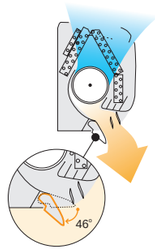
By using DC fan motor, compact design is realized.

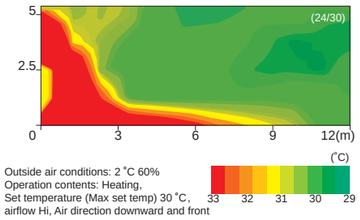
New model

Previous model



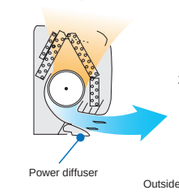
“Vertical airflow” provides powerful floor level heating

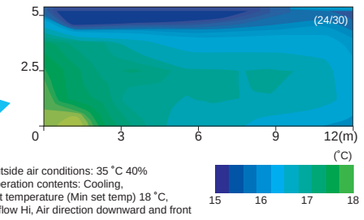




Outside air conditions: 2 ˚C 60%
Operation contents: Heating,
Set temperature (Max set temp) 30 ˚C,
airflow Hi, Air direction downward and front

“Horizontal airflow” does not blow cool air directly at the occupants in the room



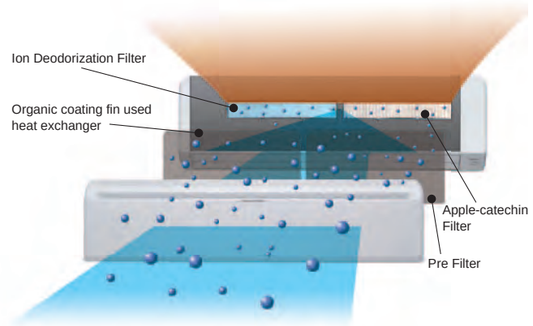


Outside air conditions: 35 ˚C 40%
Operation contents: Cooling,
Set temperature (Min set temp) 18 ˚C,
airflow Hi, Air direction downward and front

Easy maintenance

Simplification of drain pan cleaning improves maintenance-ability.

Air conditioner filter features



Antibacterial deodorizing pre-filter with special ceramic powder

Long-life* Ion Deodorization Filter

The filter deodorizes by powerfully decomposing absorbed odors using the oxidizing and reducing effects of ions generated by the ultra-fine-particle ceramic.

(*The filter can be used for approx. 3 years if it is washed under water to restore its surface action when it is dirty.)

＋ Using different filters at both sides

Apple-catechin Filter

Fine dust, invisible mold spores, and harmful microorganisms are absorbed onto the filter by static electricity, and further growth is inhibited and deactivated by the polyphenol extracted from apples.

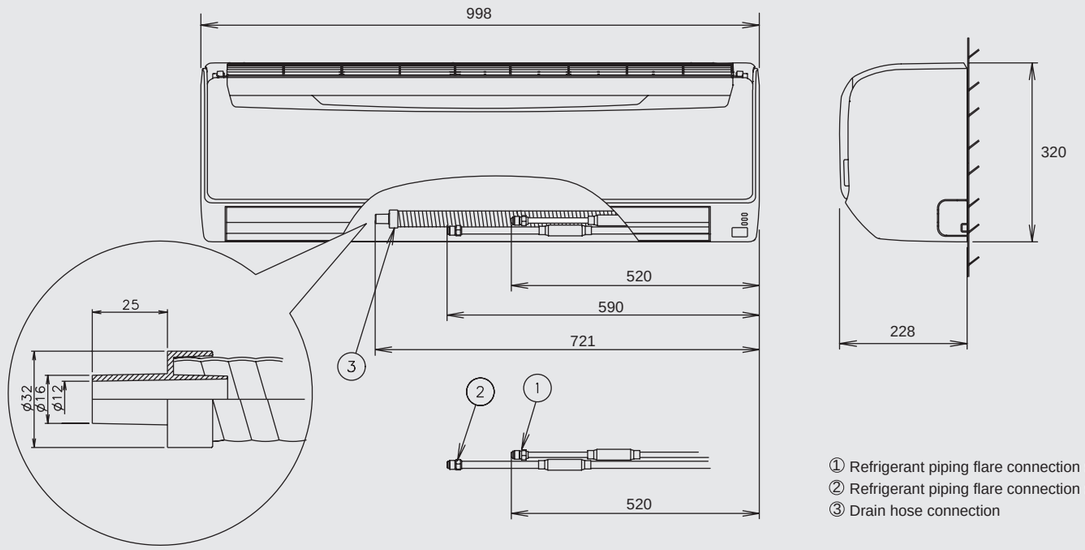
Specifications

Model name			ASHA18GACH	ASHA24GACH	ASHA30GACH
Power source			230V ~, 50Hz		
Capacity	Cooling	kW	5.6	7.1	8.0
	Heating		6.3	8.0	9.0
Input power		W	32	60	91
Airflow rate	High	m³/h	840	1,100	1,240
	Med		770	910	980
	Low		690	730	770
Sound pressure level	High	dB(A)	41	48	52
	Med		39	43	45
	Low		35	35	35
Dimensions (H x W x D)		mm	320 x 998 x 228		
Weight		kg	15		
Connection pipe diameter	Liquid (Flare)	mm	ø9.52		
	Gas (Flare)		ø15.88		
	Drain		ø12 (I.D.) ; ø16 (O.D.)		

Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27˚CDB / 19˚CWB, and outdoor temperature of 35˚CDB / 24˚CWB.
Heating : Indoor temperature of 20˚CDB / (15˚CWB), and outdoor temperature of 7˚CDB / 6˚CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.
Voltage : 230 [V].

Dimensions (Unit : mm)

Models: ASHA18 / ASHA24 / ASHA30



① Refrigerant piping flare connection (Liquid)
② Refrigerant piping flare connection (Gas)
③ Drain hose connection

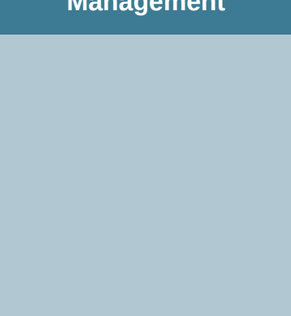
Control System

Every user's needs are supported by offering a variety of controls, such as individual control, central control and building management control options.

Building Management

General-purpose Building Control Computer

Connectable to various sized BMS/BAS*1



or

Air Conditioning Central Control

System Controller Software

UTY-APGX
UTY-PEGX(Option)

USB Adaptor*2

(Field supplied)

Internet or Public Telephone Line

Remote / Monitoring side

Touch Panel Controller

UTY-DTGG

Central Remote Controller

UTY-DCGG

Group Remote Controller

UTY-CGGG

Network Convertor
UTY-VGGXZ1

BACnet® Gateway Software

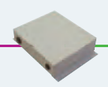
UTY-ABGX

USB Adaptor*2

(Field supplied)

Network Convertor (BMS / LONWORKS®)

UTY-VLGX



Air Conditioning Individual Control

Wired Remote Controller (Touch panel)

UTY-RNRG

Wired Remote Controller

UTY-RNKG

Simple Remote Controller

UTY-RSKG

Simple Remote Controller

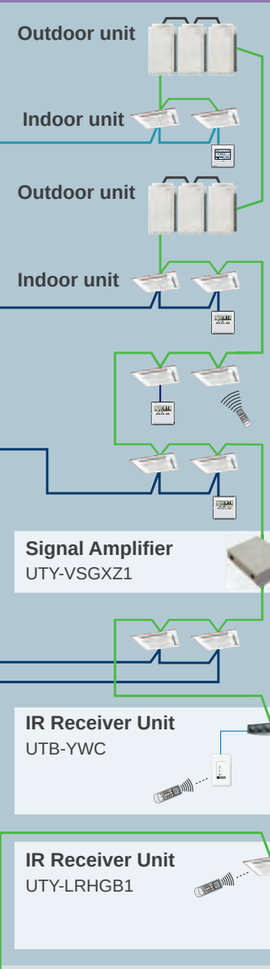
UTY-RHKG

Without operation mode

Wireless Remote Controller

UTY-LNHG

System



Card-key

(Field supplied)

External Switch Controller

UTY-TEKX

Service Tool Software

UTY-ASGX

USB Adaptor*2

(Field supplied)

Web Monitoring Tool Software

UTY-AMGX

Internet or Public Telephone Line

(VRF system side)

USB Adaptor*2

(Field supplied)

(Monitoring side)

For single split

Network Convertor

UTY-VGGXZ1

- Transmission line (VRF Network)
- Module link
- Remote controller line (2 wires)
- Remote controller line (3 wires)
- USB cable
- LONWORKS® Network
- Ethernet
- Signal line(Single split system)
- Group Remote Controller line

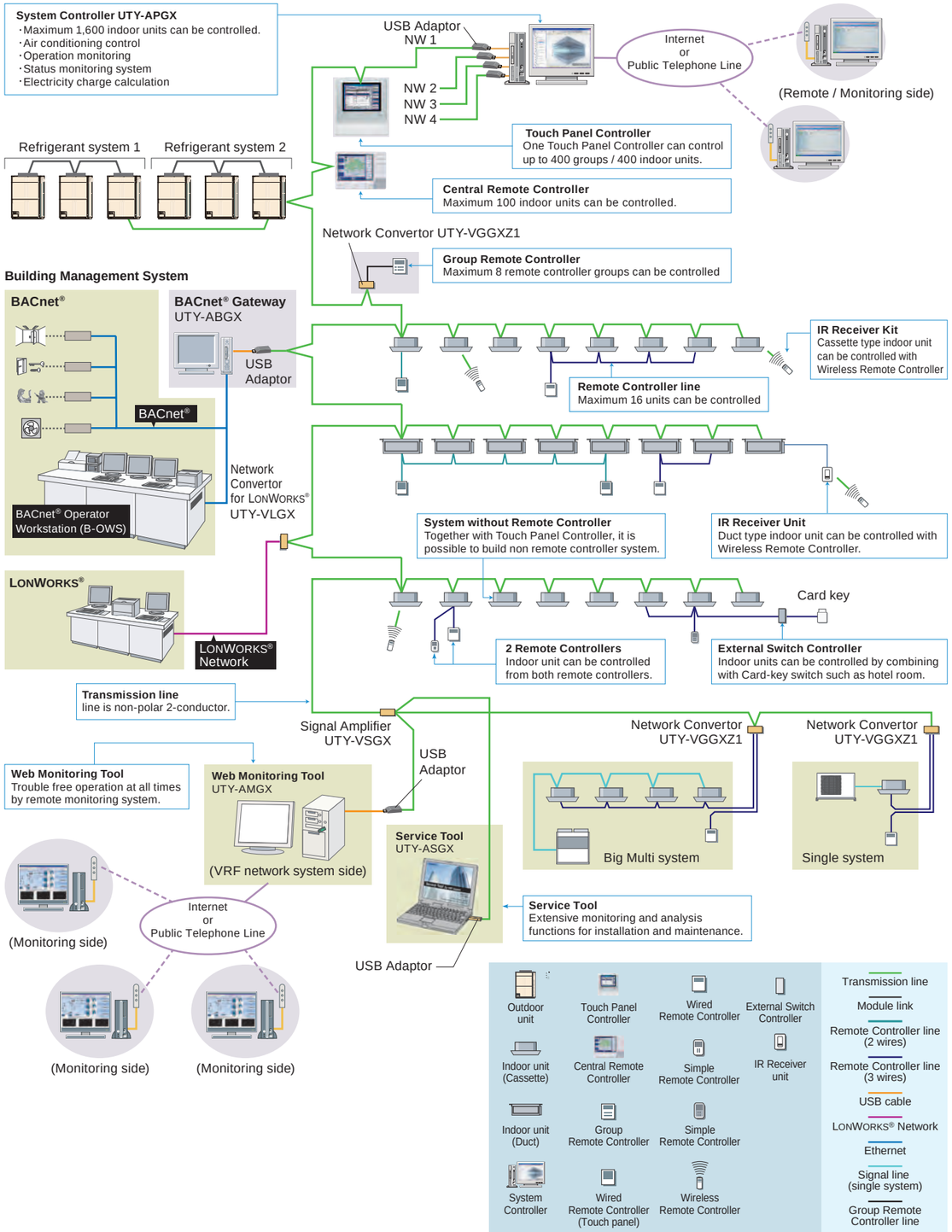
*1. BMS/BAS: Building Management System / Building Automation System

*2. USB Adaptor is U10 USB Network Interface of Echelon® Corporation.

Wiring system

- Wiring construction of the control system is made of power source wiring, transmission wiring and remote controller wiring.
- Total wiring length (total length of transmission line) can be extended up to 3,600m (by using signal amplifiers).

Max. transmission line length
3,600m



Comparison table of Controllers

Item		Wired Remote Controller (Touch panel)	Wired Remote Controller	Simple Remote Controller	Simple Remote*1 Controller	Wireless Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller Software
Model name		UTY-RNRG	UTY-RNKG	UTY-RSKG	UTY-RHKG	UTY-LNHG	UTY-CGGG	UTY-DCGG	UTY-DTGG	UTY-APGX
Max. controllable remote controller groups		1	1	1	1	1	8	100	400	1600
Max. controllable indoor units		16	16	16	16	16	82	100	400	1600
Max. controllable groups		–	–	–	–	–	–	16	400	1600
Air conditioning control function	On / Off	●	●	●	●	●	●	●	●	●
	Operation mode setting	●	●	●	–	●	●	●	●	●
	Fan speed setting	●	●	●	●	●	●	●	●	●
	Room temp. setting	●	●	●	●	●	●	●	●	●
	Room temp. set point limitation	●	–	–	–	–	–	●	●	●
	Test operation	●	●	●	–	●	–	●	●	–
	Up/down air direction flap setting	●	●	–	–	●	–	●	●	●
	Right/left air direction flap setting	●	●	–	–	●	–	●	●	●
	Group setting	–	–	–	–	–	–	●	●	●
	RC prohibition	–	–	–	–	–	–	●	●	●
	Anti freeze setting	●	–	–	–	–	–	●	●	●
	Setback cool/heat	○	–	–	–	–	–	–	–	–
	Economy mode setting	●	●	–	–	●	–	●	●	●
Display	Failure	●	●	●	●	–	●	●	●	●
	Defrosting	●	●	●	●	–	–	●	●	●
	Current time	●	●	–	–	●	●	●	●	●
	Day of week	●	●	–	–	–	●	–	●	●
	R.C. prohibition	●	●	●	●	–	●	●	●	●
	Cooling/heating priority	●	●	●	●	–	●	●	●	●
	Address display	●	●	●	●	–	●	●	●	●
	Room temp	●	–	–	–	–	–	–	–	–
	Multi language	●	–	–	–	–	–	●	●	●
	Summer time	●	–	–	–	–	–	●	●	●
	Name registration	●	–	–	–	–	–	●	●	●
	Backlight	●	–	●	●	–	–	●	●	–
Timer	Schedule timer	Period	Week	Week	–	–	–	Week	Week	Year	Year
		On/Off, Temp, mode, times per day	8	4	–	–	–	4	20	20	144
	On/off timer		●	●	–	–	●	–	–	–	–
	Sleep timer		–	–	–	–	●	–	–	–	–
	Program timer		–	–	–	–	●	–	–	–	–
	Auto off timer		●	–	–	–	–	–	–	–	–
	Day off		●	●	–	–	–	–	●	●	●
	Min. unit of timer setting (Minutes)		10・30	30	–	–	5	10	10	10	10
Control	Status monitoring system		–	–	–	–	–	–	●	●	●
	Electricity charge calculation		–	–	–	–	–	–	–	–	●
	Error history		●	●	●	●	–	●	●	●	●
	Emergency stop		–	–	–	–	–	–	● *2	● *2	–
	Control via internet		–	–	–	–	–	–	–	–	●
	E-mail notification for malfunction		–	–	–	–	–	–	–	–	●
	Key lock		● Child lock	–	–	–	–	● Child lock	● Password setting	● Password setting	● Password setting

*1 "Operation mode" setting is not available for this model.
*2 This function is available only through external input. control.

● : Supported ○ : Supported soon
— : Not supported

Wired Remote Controller (Touch Panel)

UTY-RNRG

Max. controllable 16 indoor units

Easy operation by high-definition large
STN-LCD touch panel screen

- Easy finger touch operation with LCD panel
- Built-in weekly/Daily timer(ON/OFF,Temp.,Mode)
- Backlight enables easy operation in a darkened room
- Room temperature display
- Control up to 16 indoor units
- Corresponds to 7 different languages (English, Chinese, French, German, Spanish, Russian, Polish)

Functions

High performance and compact size

- In addition to the individual control, various energy saving controls can be realized using one remote controller only.

Individual control + **Thermo sensor** + **Weekly timer** + **Auto off timer** →

Accurate and comfortable control

- Indoor temperature can be detected accurately by the inclusion of a thermo sensor in the body of the wired controller.

Room temperature sensor

Room temperature display

Backlight

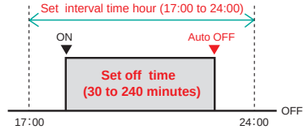
- Backlight enable easy operation in a darkened room.
- For the lighting time of Backlight, 30 or 60 seconds can be set.
- Backlight activates while the buttons are operated and goes off 30 or 60 seconds after the operation stops.

Various energy saving control

Auto OFF Timer

- The indoor unit automatically turns off after a set time has passed.
- The time interval for which auto off works can be set.

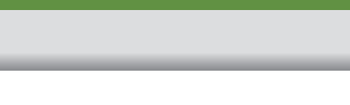
Ex) At interval time hour (17:00 to 24:00) to prevent forgetting to turn off



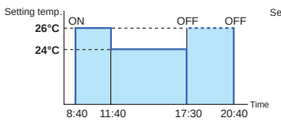
2 schedules Weekly Timer

- 2 schedules such as for the summer and winter can be set.
- 8 setting changeable per day of week (Setting items: On/Off, Temperature, Mode, Time)

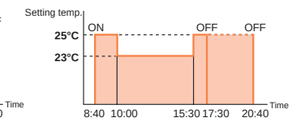
Ex)



Schedule 1 (Summer schedule)



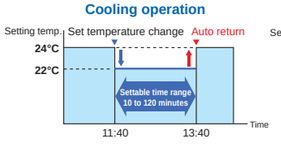
Schedule 2 (Winter schedule)



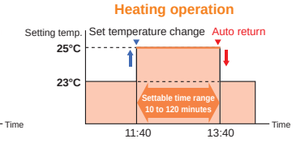
Set Temperature Auto Return

- The setting temperature automatically returns to the previous setting temperature.
- The time range in which the set temperature can be changed is 10 to 120 minutes.

Cooling operation



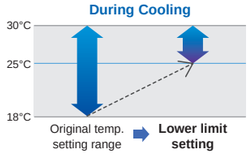
Heating operation



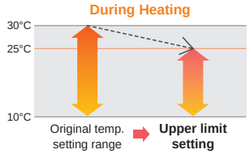
Set Temperature Upper and Lower Limit Setting

- The set temperature range can be set for each operation mode. (Cooling / Heating / Auto)

During Cooling



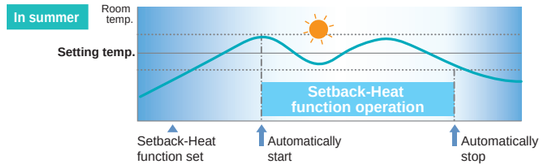
During Heating

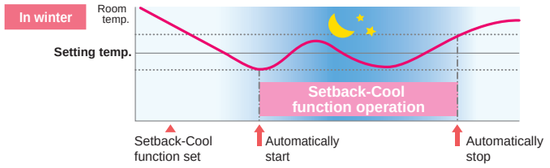


Various convenient functions

Setback-Cool / Setback-Heat (Future release)

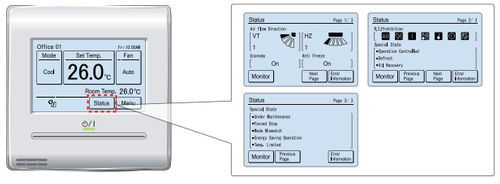
・Cooling / Heating is automatically started when the room temperature reaches a setting temperature even if the indoor unit is off.





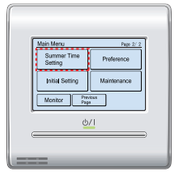
Displays setting status and Limitations

- The remote controller settings can be easily checked



Summer Time display

- This function can be set easily from Menu screen



Child lock

- Lock / unlock method: Push the ON/OFF button and the screen (4 seconds)

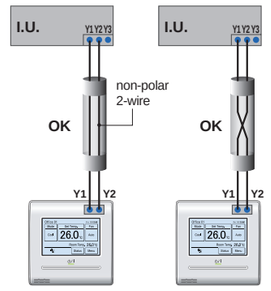
Name Registration

- Indoor unit names can be registered in the remote controller screen. This makes it easy to identify the indoor unit you want to control in the room.

Simplified installation

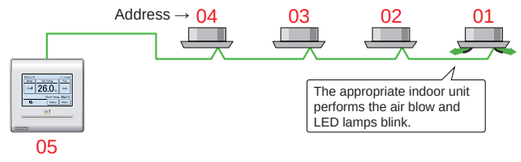
Uses non-polar 2-wire type

- The faulty wiring can be prevented by using non-polar 2-wire.



Auto Address Setting/Setting Position Notification

- Reduce errors and install time compared with the current specification Rotary SW
- When will be set remote controller groups, can also be set automatically new Wired remote controller address
- After auto address setting of new wired remote controller groups, what number can also confirm addresses



Easy Maintenance

Error History Display

- The errors that occur in the indoor unit or remote controller are saved as a history.
- A maximum of 32 error incidents can be saved.

Specifications

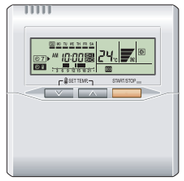
Model name	UTY-RNRG
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 20.4
Weight (g)	220

DC12V is supplied by the indoor unit.

Wired Remote Controller

Max. controllable 16 indoor units

UTY-RNKG



The room temperature can be controlled by detecting the temperature accurately from the built-in sensor

- Simple operation with Built-in Weekly / Daily Timer.
- Control up to 16 indoor units.
- Up to 2 wired remote controllers can be connected to a single indoor unit.

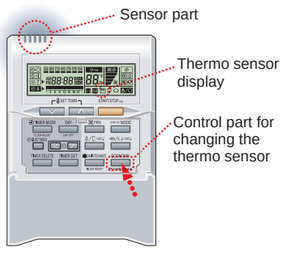
Functions

Powerful features and compact size

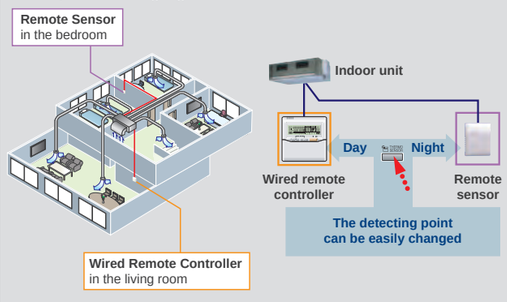
This Wired Remote Controller incorporates four primary functions into a single unit.

Accurate and comfortable

Indoor temperature can be detected accurately by the inclusion of a thermo sensor in the body of the wired controller.
This new wired remote controller and the optional remote sensor allows flexibility in sensor location, suitable for all requirements.



Example of changing sensor



Displayed temperature is set temperature.

Built-in timers

Easy-to-understand time bar display

Weekly timer : Possible to set ON/OFF time to operate twice each day of the week.

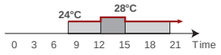
Setup screen example
Set to Wednesday: 8:00 to 20:00.

Screen after setup

Setback timer : Possible to set temperature for two times spans and for each day of the week.

Setup screen example
Set from Sunday to Saturday:
12:00 to 15:00, 28°C.

At "Weekly timer" + "Set back timer" setup



24°C →28°C→ 24°C

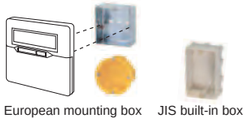
Diagnosis check function

Two methods are available for determining the cause of failure in the event of a malfunction occurs:

- **Malfunction diagnosis function**
- **Error history (Last 16 error codes can be accessed)**

Simple installation

Components are compatible with standard switch boxes.
Flat back surface allows to be installed wherever it is needed.



European mounting box JIS built-in box

Specifications

Model name	UTY-RNKG
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 18
Weight (g)	160

DC12V is supplied by the indoor unit.

Simple Remote Controller

Max. controllable 16 indoor units

UTY-RSKG
UTY-RHKG (Without Operation mode)

UTY-RSKG

UTY-RHKG
Without Operation mode

Compact remote controller provides access to basic functions

- Up to 16 indoor units can be controlled with one remote controller.
- Suitable for hotels or offices as it is easily operated with no complex functions.

Functions

User-friendly operation

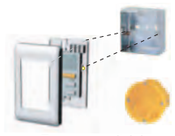
- Provides access to basic operations, such as Start / Stop, Fan control, Operation mode switching, and Room temperature setting.
- A large On / Off button is provided in the centre of the remote controller for easy operation.
- Can be used jointly with other individual control unit.
- Following an error display, diagnostics can be carried out on the controller.

Backlight

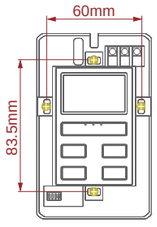
- Backlight enables easy operation in a darkened room.
- Backlight activates during all button operations, and lasts 10 seconds in Operation mode and 5 seconds in stop mode after a button is pressed.

Simple installation

Can be mounted on the European Mounting Box (Installation dimension: 60mm) or the JIS Built-in Box (Installation dimension: 83.5mm).



European switch box JIS built-in box



Functions summary

Model / Operation	UTY-RSKG	UTY-RHKG
On / Off	●	●
Fan control	●	●
Operation mode	●	— *1
Room temp. setting	●	●

*1: "Operation mode" setting is not available.
It is recommend to use together with other type controller.

Specifications

Model name	UTY-RSKG	UTY-RHKG
Power Supply	DC 12V	
Dimensions (H x W x D) (mm)	120 x 75 x 14	
Weight (g)	90	

DC12V is supplied by the indoor unit.

Wireless Remote Controller

UTY-LNHG

Max. controllable **16** *indoor units*

Selectable **4** *daily timers*

Simple and sophisticated operations
with a choice of 4 daily timers

• A single controller controls up to 16 indoor units.

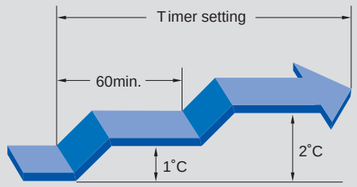
Functions

Built-in daily timer

Select from 4 different timer programs :
On / Off / Program / Sleep
Program timer : The program timer operates the ON and OFF timer once within a 24 hour period.
Sleep timer : The sleep timer function automatically corrects the set temperature according to the time setting to prevent excessive cooling or heating during sleep hours.

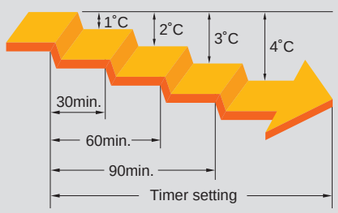
Cooling operation/dry operation

When the sleep timer is set, the set temperature automatically rises 1˚C every hour. The set temperature can rise up to a maximum of 2˚C.



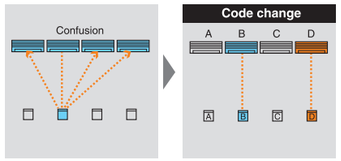
Heating operation

When the sleep timer is set, the set temperature automatically drops 1˚C every 30 minutes. The set temperature can drop to a max. of 4˚C.

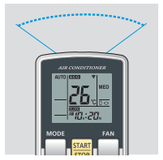


Easy installation and operation

Code selector switch prevents indoor unit mix-up. (Up to 4 codes can be set.)

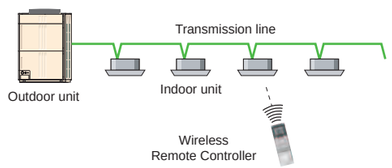


Wide and precise



Address setting

During installation work, address setting can be performed using the Wireless Remote Controller, thus eliminating manual switch setting.



Specifications

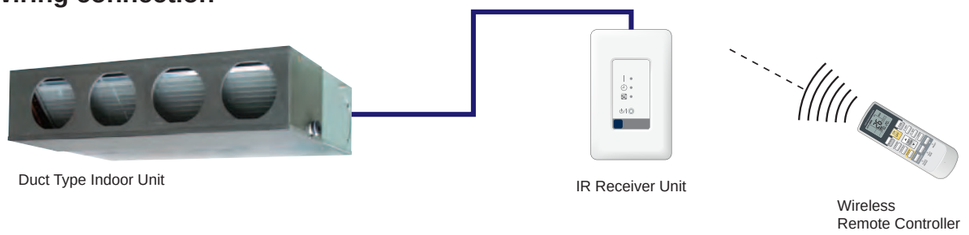
Model name	UTY-LNHG
Battery	1.5V (R03 / LR03 / AAA) x 2
Dimensions (H x W x D) (mm)	170 x 56 x 19
Weight (g)	85

IR Receiver Unit

UTB-YWC

Necessary to control for all duct type by
Wireless Remote Controller

Wiring connection



Specifications

Model name	UTB-YWC
Battery	DC 12V
Dimensions (H x W x D) (mm)	145 x 90 x 30
Weight (g)	150

IR Receiver Unit

UTY-LRHGB1

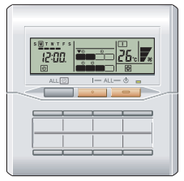
Cassette type indoor unit can be controlled
with Wireless Remote Controller

Specifications

Model name	UTY-LRHGB1
Battery	DC 12V
Dimensions (H x W x D) (mm)	193.9 x 193.9 x 31.2
Weight (g)	140

Group Remote Controller

UTY-CGGG



Group control of indoor units with simple operation

- Up to 8 remote controller groups can be controlled by one Group Remote Controller.
- Up to 64 Group Remote Controllers can be connected in one VRF network system.
- Network Convertor (UTY-VGGXZ1) is required to connect Group Remote Controllers to a VRF network system.
  (Network Convertor allows up to 4 Group Remote Controllers)

Max. controllable 8 remote controller groups

Max. connectable 64 group R.C. in a VRF network system

Functions

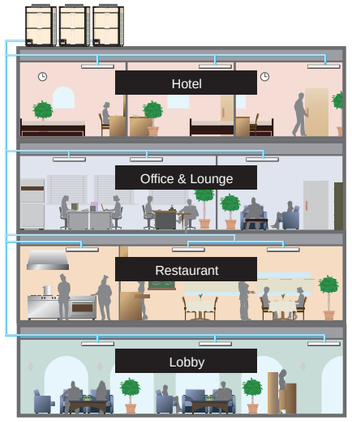
High performance and compact size

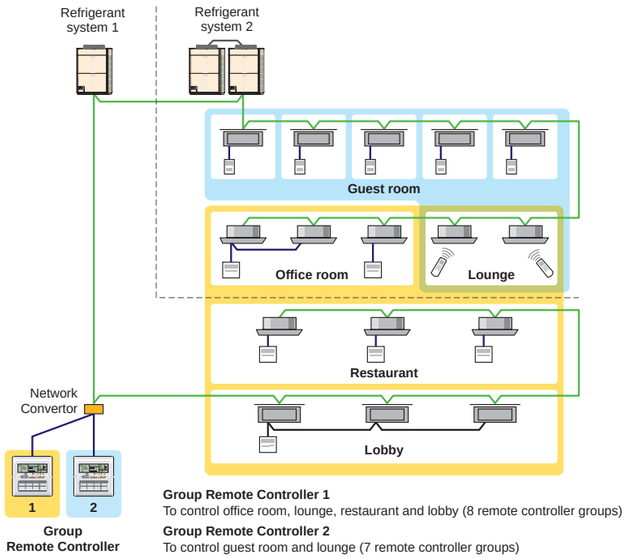
ON / OFF, Operating mode, Room temperature and Fan speed setting can be controlled / monitored centrally or individually.

Central control + **ON/OFF control** + **Weekly timer** →

Control up to 8 remote controller groups

Single Group Remote Controller controls and monitors up to 8 remote controller groups.





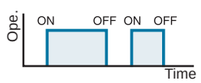
Group Remote Controller 1
To control office room, lounge, restaurant and lobby (8 remote controller groups)

Group Remote Controller 2
To control guest room and lounge (7 remote controller groups)

Built-in weekly timers

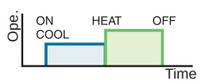
The weekly timer is provided as a standard function.
1. The timer can be set up for up to 4 times per day. (On / Off, operating mode, set temperature)
2. Allows separate settings for each day of the week.

ON / OFF switching



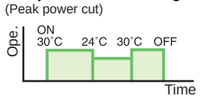
Air conditioning ON/OFF setting corresponding to air conditioning specification needs is possible.

Cooling / Heating switching



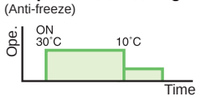
Switching between the cooling mode and heating mode can be set by time.

Temperature switching
(Peak power cut)



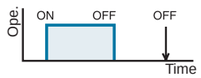
Since peak power cut is performed in a planned way, setting which changes the room temperature linked with time is possible.

Temperature switching
(Anti-freeze)



Low temperature heating operation can be set to prevent freezing in cold regions at night, etc.

Stop setting



Indoor unit stop setting at operation end time is possible.

Useful functions

1 Timer setting at all the connected indoor units is possible by centralized timer on the front panel.

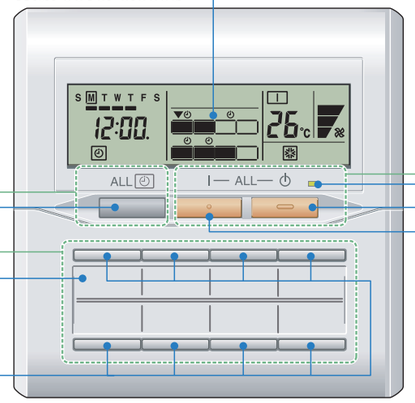
ALL TIMER Button
Press the ALL TIMER button to turn the timer operation on or off for all indoor units.

3 The indoor unit can be quickly turned on and off by ON / OFF button of each indoor unit on the front of the door.

Indoor Unit Name Labels
Write the names of the indoor units on the included labels and attach them.

ON / OFF Button
Press the ON / OFF button to turn the corresponding indoor unit on or off.

With cover closed



Indoor Unit Operation Indicators
Timer setting at all the connected indoor units is possible by centralized timer on the front panel.
■ : On ▭ : Off
⊘ : Timer operation ▼ : Selection

2 All the connected indoor units can be turned on / off simultaneously by centralized ON/OFF button on the front of the cover.

Operation Lamp
This is on if any of the indoor units is operating. This flashes if any of the indoor units has malfunction(s).

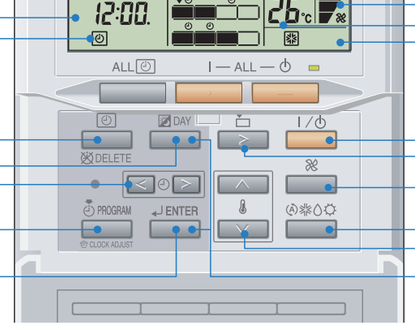
ALL OFF Button
Press the ALL OFF button to turn off all of the indoor units.

ALL ON Button
Press the ALL ON button to turn on all of the indoor units.

Timer and Clock Display and setting

- Setting Display
- Day Display
- Timer and Clock Display
- Timer Mode Display
- Timer Mode (DELETE) Button
- DAY Button
- Set Time Button
- PROGRAM (CLOCK ADJUST) Button
- ENTER Button

With cover open



Displaying the Status and Controlling indoor units

- Transmission Display
- Operation Lock Display
- ON / OFF Display
- Fan Speed Display
- Set Temperature Display
- Operation Mode Display
- ON / OFF Button
- Select Button
- Fan Control Button
- Master Control Button*1, *2, *3
- Set Temperature Button
- Child Lock Function

*1 : "AUTO Ⓐ" is not available for a heat pump model unless it is set up for the master indoor unit.
*2 : "FAN ※" is not available for a heat pump model
*3 : "HEAT ☼" is not available for a cooling only model

Specifications

Model name	UTY-CGGG
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 18
Weight (g)	200

DC12V is supplied by a network converter.

Central Remote Controller

UTY-DCGG

Central Remote Controller fits small- and medium-sized buildings and tenants. The operation status of all connected indoor units can be viewed at a glance on a large LCD monitor to simplify individual control to batched control.

Max. controllable 100 Indoor units

Max. controllable 16 groups

- Individual control and monitor of 100 indoor units
- 5 inch TFT color screen
- User friendly view and easy operation
- External input / output contact
- Detachable power supply unit
- Corresponds to 7 different languages (English, Chinese, French, German, Spanish, Russian, Polish)

User friendly operation

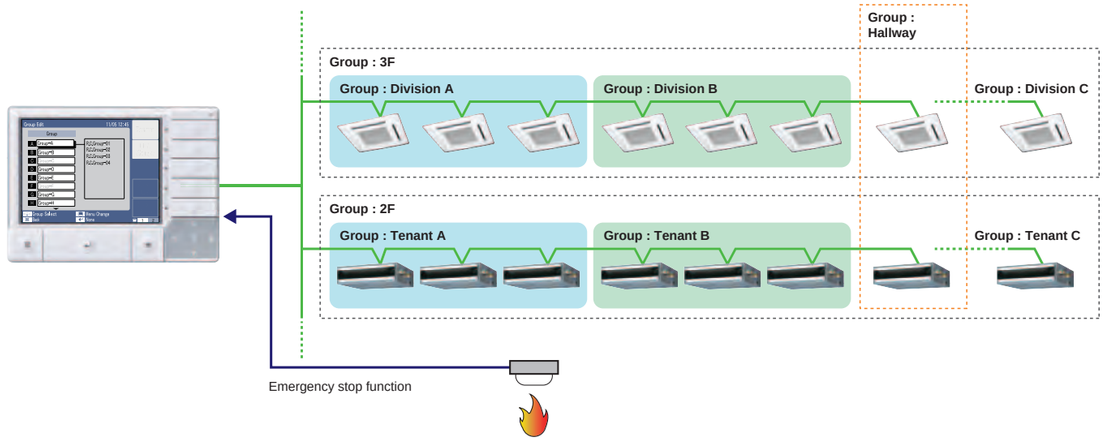
Operation status monitor displays for all indoor units
Easy comprehensible display and operation button

Function Menu
Function menu displays the items to select.

Function button
1 to 1 function button supports easy setting.

System overview

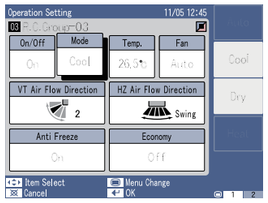
- It allows multiple indoor units grouping (Max.16 groups controlled)
- Interlock with external device



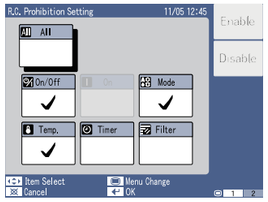
Functions

Diverse control of indoor units

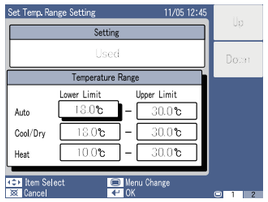
- Individual control (On / Off, Mode, set Temp, Fan speed, Economy operation, Antifreeze operation)



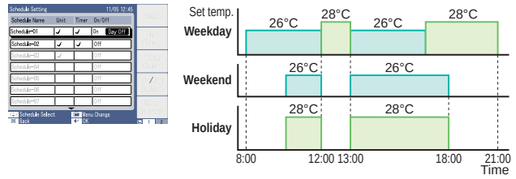
- **Remote controller prohibition (All, On / Off, Mode, Temp, Timer, Filter) :** R.C prohibition setting prohibits individual remote control operation from this controller



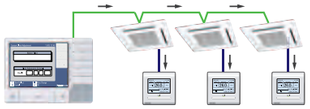
- Room temperature set point upper and lower limitation



- **Weekly timer :** Weekly timer can set the timer by various combinations.

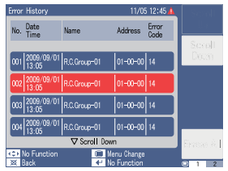


- **Automatic clock adjustment :** The time setting of each controller can be set in batch automatically.



Error history

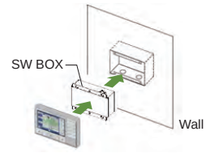
- Max 200 Errors memorize.
- Suitable maintenance is possible by analysis of the error history data.



Easy Installation

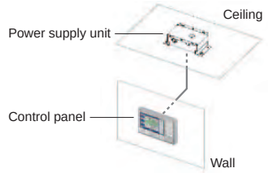
- The control panel and power supply unit can be installed separately.
- For flexibility in installation, the Control panel can be built into the wall or fix on the wall.

Setting pattern 1

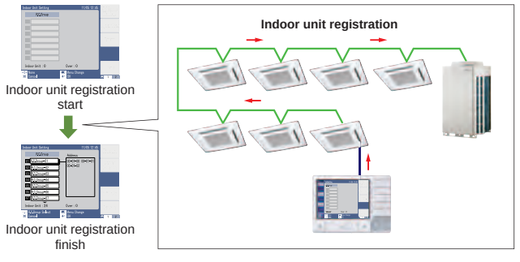


Control panel + Power supply unit

Setting pattern 2



- Automatic or manual indoor unit registration



Specifications

Model name	UTY-DCGG	
	Control Panel	Power Supply Unit
Power Supply	DC 5 V	100-240V, 50-60Hz, Single phase
Dimensions (H x W x D) (mm)	120 x 162 x 25.7	99 x 135 x 39.2
Weight (g)	308	355

<PACKING LIST>

Packing List	Control Panel / Power Supply Unit / Connecting cable, etc.

Touch Panel Controller

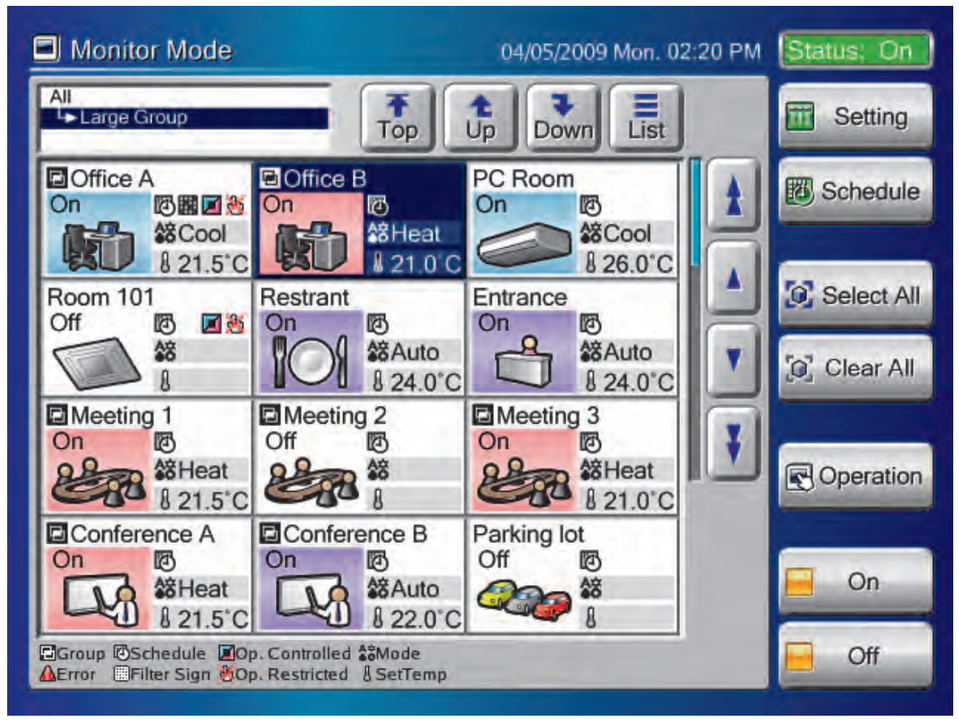
UTY-DTGG

Max. controllable **400** *Indoor units*

High visibility and easy operation via high resolution
7.5 inch TFT-LCD touch panel screen

- Large-sized 7.5-inch TFT color
- LCD Easy finger touch operation
- Stylish shape and design to suit all application
- No additional component is required for installation
- Up to 400 indoor units can be controlled
- Selectable 2 display types (Icon / List) in monitoring mode
- Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish.

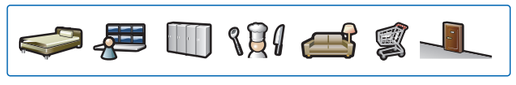
Functions



Real size screen image

Easy operation

- Large and wide-angled LCD is easily viewable
- Easy-to-understand icon-driven Graphical User Interface (GUI)
- Wide range of simple-to-understand icons

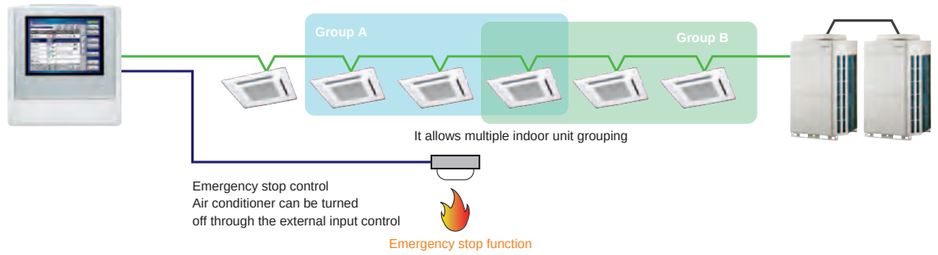


- Operation can be selected using your finger or the dedicated touch pen by pressing the appropriate on-screen icon
- Up-to-date status display
- Background color identifies current control operation blue for monitoring, green for operational control

Easy maintenance

- Flat touch screen is easily cleaned
- Non-glare coating on touch panel controller minimizes fingerprint marking
- Easy-to-remove front cover

Up to 400 indoor units can be controlled



Function

- Up to 400 indoor units can be controlled
- It allows multiple indoor units grouping
- Schedule timer function is standard (20 patterns per day)
- Emergency stop function(through the external input control)
- Temperature upper and lower limit setting

Individual control

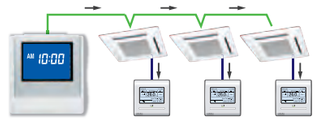
Flexible grouping

Schedule control

Indoor units operation monitoring

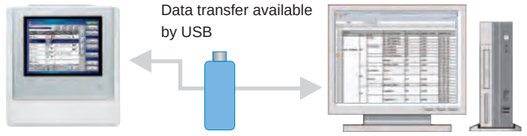
Automatic clock adjustment

The time setting of each controller can be set in batch automatically.



Versatility

CSV format data edited by PC can be imported to Touch Panel Controller.



Easy installation

Touch Panel Controller is easily mounted to the wall Flat back surface allows to be installed wherever it is needed.

- Adjustable for tilting (horizontal) after the installation of the body

No additional component is required for installation

- There is no need for the installation space of power supply adaptor and transmission adaptor etc.

Specifications

Model name	UTY-DTGG
Power Supply	100-240V 50/60Hz, Single phase
Dimensions (H x W x D) (mm)	260 x 246 x 54
Weight (g)	2,150
Interface	USB 2.0

System Controller Software

UTY-APGX

System Controller realizes the advanced integrated monitoring & control of VRF network system from small scale buildings to large scale buildings.

- Up to a maximum of 4 VRF network systems, 1600 indoor units, and 400 outdoor units can be controlled.
- In addition to air conditioning precision control function, central remote control, electricity charge calculation, schedule management, and energy saving functions are strengthened and building manager and owner needs are met.

Max. controllable **4** *VRF network systems*

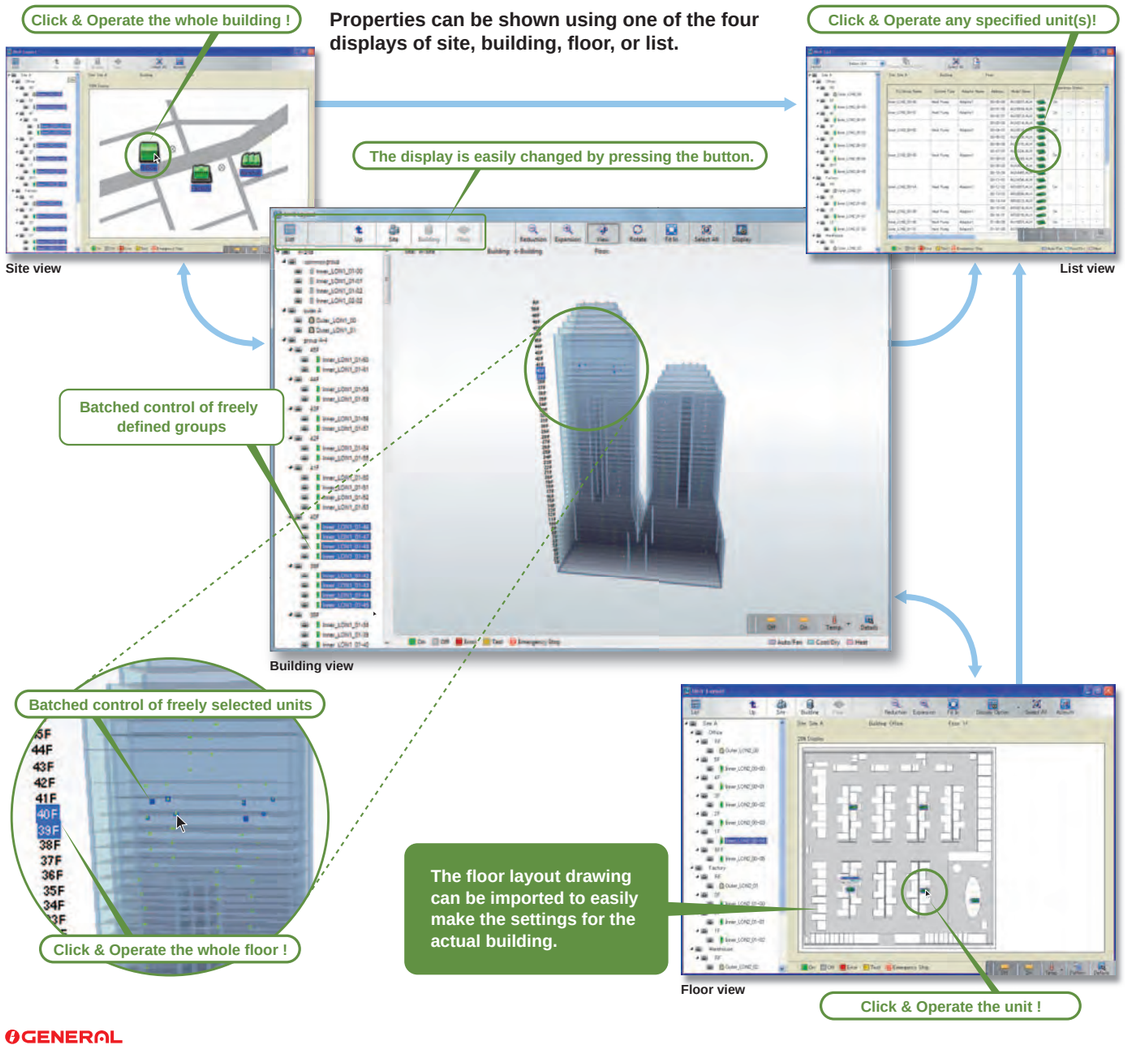
Max. controllable **400** *Outdoor units*

Max. controllable **1,600** *Indoor units*

Functions

User friendly view and operation

- **Click & Operate :** The property is shown visually from the perspective most suitable for operation and operated accordingly (Click & Operate). You can select from among the 4 displays of site, building, floor, or list.
- **Freely define groups for batched control :** Indoor units can be freely grouped for simple batched control from a tree menu. Grouping by hierarchal structure, such as by section, division or department is possible.

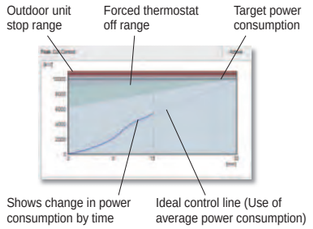

Click & Operate the whole building !
Properties can be shown using one of the four displays of site, building, floor, or list.
Click & Operate any specified unit(s)!
The display is easily changed by pressing the button.
Site view
List view
Batched control of freely defined groups
Building view
Batched control of freely selected units
Click & Operate the whole floor !
The floor layout drawing can be imported to easily make the settings for the actual building.
Floor view
Click & Operate the unit !

Energy saving management

With UTY-PEGX Option

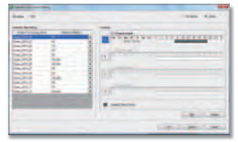
Peak cut operation Option

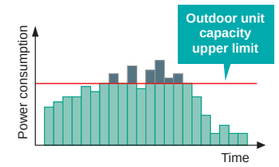
A power meter is connected to detect the total power consumption while shifting the indoor unit set temperature, set the indoor unit forced thermostat off, and taking other measures to carefully control the power consumed while maintaining comfort and conducting control to maintain the target power consumption set for each time.
The indoor units to be controlled can be freely grouped and the control level can be set.


Outdoor unit stop range
Forced thermostat off range
Target power consumption
Shows change in power consumption by time
Ideal control line (Use of average power consumption)

Outdoor unit capacity save Option

Outdoor unit capacity save switches the outdoor unit capability upper limit to suppress power consumption during hot summers and cold winters by averaging the power saving effect of each refrigerant system. You can select from 50% or more of the capacity upper limit.

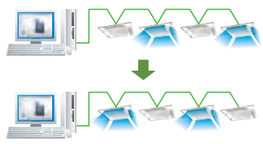

Outdoor unit capacity control screen



Indoor unit rotation operation Option

The operation of indoor units can be automatically rotated within a group in accordance with the set annual schedule to reduce power consumption while maintaining comfort. The indoor unit operation stoppage rate can be selected.

Indoor unit rotation screen



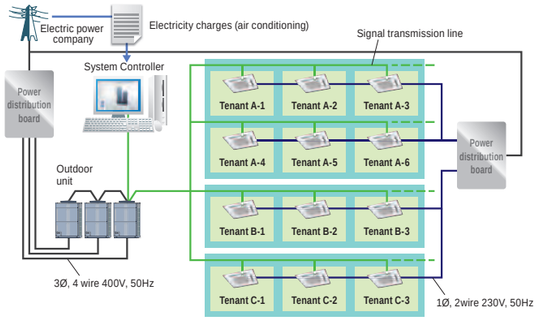
Batched stop

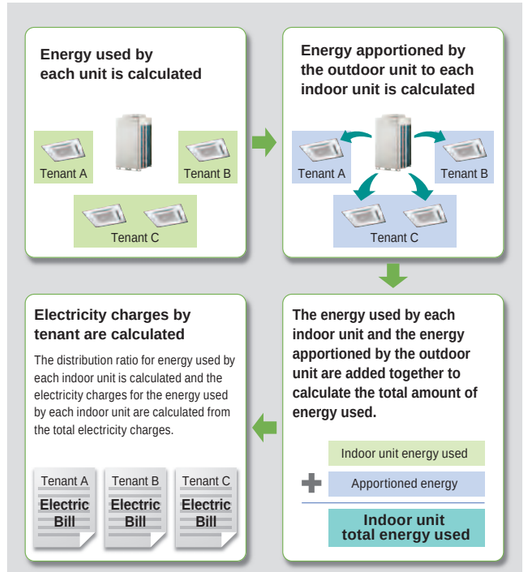
Batched stop at a freely set time for a property, building, or freely set block unit can be done to prevent any air conditioning unit from being forgotten to be turned off at the end of office hours, etc. In addition, any air conditioning unit whose operation is left on can be immediately identified by the icon color for a building or indoor unit in the monitoring screen and batched stop conducted in response.

Electricity charge apportionment

Electricity charge apportionment calculation framework
Suppose you want to find the power consumed by the air conditioners of each tenant from the electricity charge for each month. With electricity charge apportionment function, used energy apportionment ratio will be provided, calculating in detail the energy consumed by the units used by each tenant. This information is then used to calculate the charges for the electricity consumed for air conditioning by each tenant from the total electricity charges in the bill from the electric power company. (See figure at right)
The detailed calculation takes into consideration such things as unused rooms and nighttime electricity charges and shows them in a charges calculation sheet.

System Configuration Example



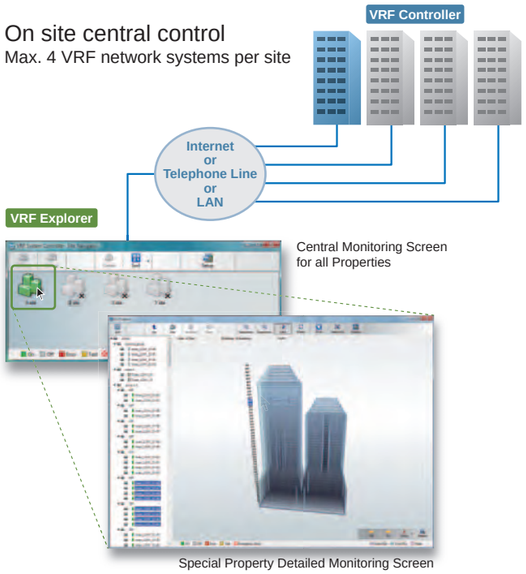

Energy used by each unit is calculated
Tenant A
Tenant B
Tenant C
Energy apportioned by the outdoor unit to each indoor unit is calculated
Tenant A
Tenant B
Tenant C
The energy used by each indoor unit and the energy apportioned by the outdoor unit are added together to calculate the total amount of energy used.
Indoor unit energy used
Apportioned energy
Indoor unit total energy used
Electricity charges by tenant are calculated
The distribution ratio for energy used by each indoor unit is calculated and the electricity charges for the energy used by each indoor unit are calculated from the total electricity charges.
Tenant A
Tenant B
Tenant C
Electric Bill
Electric Bill
Electric Bill

Remote centralized control

System Controller may be used on site or remotely over various networks for remote central control. System Controller requires 2 softwares working together. VRF Controller runs on site and communicate with VRF system. VRF Explorer runs remotely and provides user interface and communicate with the VRF Controller. VRF Controller and VRF Explorer program may run in a single PC or in different PCs separated by network. By using VRF Explorer software, one PC can perform central control of 10 VRF system sites with max. 20 buildings per site.

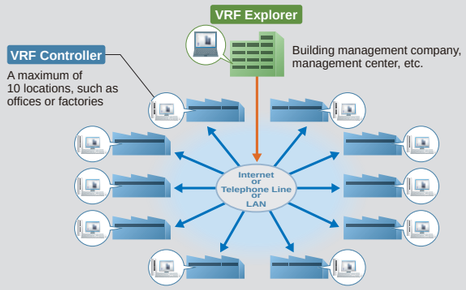
On site central control

Max. 4 VRF network systems per site

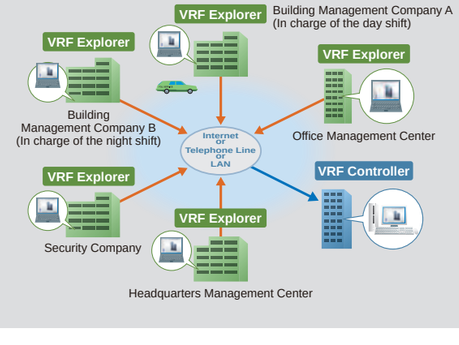


Remote central control

1 VRF Explorer can control or monitor up to 10 sites.



1 VRF Controller can be monitored from any number of VRF Explorers (Up to 5 connections simultaneously).



Can be used for a variety of applications

Air conditioning management for large shopping malls or the outlets of nationwide franchises

- Remote centralized management can be used for nighttime only to manage the air conditioning of multiple stores, operate air conditioning for people working overtime, and checking to see if employees forgot to turn off the air conditioning after they leave.
- Multiple users via a LAN can control the air conditioning in the office, general affairs department, or janitor's room.
- The air conditioning for franchise locations nationwide can be centrally controlled from headquarters to facilitate operation status and control to save energy.

Commercial buildings **Franchises**

Air conditioning management of multiple buildings spread over a large site

- Batched operation of the factory buildings on a large site can be remotely conducted from the management office of the administration building to employ power saving operation.
- The headquarters can conduct centralized remote monitoring of the company's factories in outlying areas to improve the power saving effect for the entire company.
- Controlling the operation of each building and each classroom on campus makes it possible to reduce expenses by remotely controlling those spaces in accordance with the teaching schedule.

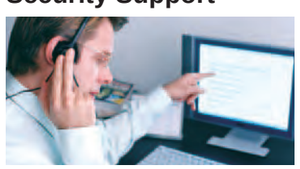
Factories **Universities** **Hospitals**

Provides high-quality building air conditioning service

- Service companies that manage buildings that are empty at night after the managers leave to go home can conduct centralized remote monitoring of the building without dispatching employees to the site, which allows them to monitor the air conditioning for multiple clients.
- The System Controller remote monitoring and control functions can be used to receive outsourcing business from small and medium size building owners to manage their air conditioning energy.
- Nighttime only remote monitoring of multiple properties after the people leave can be performed for areas that require 24-hour operation, such as server rooms, to monitor for problems.

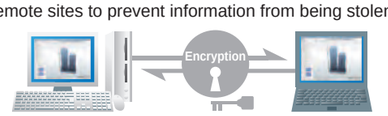
Service Companies

Security Support



Employs SSL Encryption Technology

Encryption technology is used for communications to remote sites to prevent information from being stolen.



Detailed User Management

User identification : Authorization using user IDs and passwords is employed to prevent unauthorized access.

Access authority : The functions that can be used are restricted for individual login users to prevent unauthorized use.

Schedule control

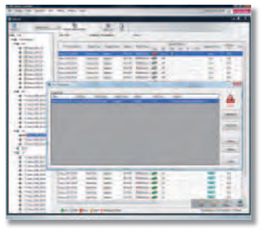
- Annual schedules can be set for each remote controller group / user defined group.
- Start / stop, operating mode, remote controller prohibition, and temperature settings can be set up to 144 times per day at 10 minute intervals for up to 101 configurations for each remote controller group.
- Settings can be made for periods straddling midnight.
- Allows programming of special settings for holidays, including public holidays, for a complete year.
- Low noise operation of outdoor unit can be scheduled.

Diverse control of indoor units

- Indoor unit operation state, operation mode, etc. are displayed
- Indoor unit start / stop and operation mode switching
- Temperature setting, Remote Controller prohibition.

Error display & E-mail notification

Error is notified with popup message, audible sound and E-mail real time when error occurs. Error for the past 1 year are logged and can be reviewed later.



Operating & control record

Displays the history of operation status and control.

Prohibition Setting

This prohibits changes to the operation mode, temperature, start / stop, etc.

Multiple language display

Corresponds to 7 different languages (English, Chinese, French, German, Spanish, Russian, Polish)

PERSONAL COMPUTER SPECIFICATIONS

The following chart shows the detail requirement for an AT compatible personal computer to run System Controller.
Applies for both VRF Controller and VRF Explorer PC.

Operating system	• Microsoft® Windows® XP SP3 (32-bit) Professional (*1) • Microsoft® Windows® Vista® SP2 (32-bit) Home Premium, Business (*2) • Microsoft® Windows® 7 SP1 (32/64-bit) Home Premium, Professional (*2) • Microsoft® Windows® 8 (32/64-bit) Pro (*2) [Supported languages] (*1) English only (*2) English, Chinese, French, German, Russian, Spanish, and Polish
CPU	Intel® Core™ i3 2GHz or higher
Memory	2GB or more (Windows® XP, Vista®, 7 32-bit), 4GB or more (Windows® 7 64-bit, Windows® 8)
HDD	40GB or more of free space
Display	1024 x 768 or higher resolution
Interface	USB port is required for each of the followings for Server PC ; • Wibu Key (Software protection key) • Echelon® U10 USB Network Interface (Required for each VRF Network) Ethernet port is required for remote connection using internet.
Accelerator	Requires the internal graphics accelerator be compatible with Microsoft® DirectX® 9.0
Software required	Adobe® Reader® 9.0 or later
Hardware required	DVD-ROM Drive

<OPTION AVAILABLE>

Energy Saving Software	UTY-PEGX(*1)	Additional support for energy saving function and Electricity Charge Apportionment using electricity meter.

<PACKING LIST>

Name and shape	Quantity	Application
DVD-ROM	1	Includes the software and manuals for System Controller. Both VRF Controller and VRF Explorer software are included.
Wibu Key (Software protection key)	1	Software protection key to be inserted in a USB slot running System Controller. System Controller may only run on a PC with Wibu Key. However, Wibu key is not required for remote VRF Explorer software.

Personal computer must be field supplied. U10 USB Network Interface must be field supplied. Contact Echelon® Corporation or its local sales representative for detail.
Product Name : U10 USB Network Interface - TP/FT-10 Channel Model Number : 75010R
*1: Energy Saving Software (UTY-PEGX) is available for the indoor units and the outdoor units after revision code B or later.

Network Convertor

UTY-VGGXZ1

Max. connectable 16 single indoor units

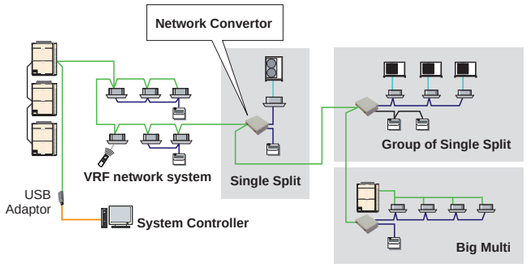
Max. connectable 4 Group Remote Controllers

- This Network Convertor is to be used for connecting single split system or Group Remote Controller (UTY-CGGG) with the VRF network system.
- Please select the function by switching the dip switch during the installation.

Functions

Used for connecting single split system

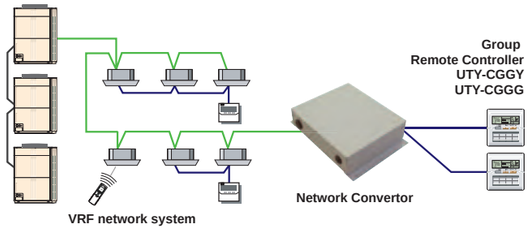
- Split type systems can be centrally controlled from Touch Panel Controller or System Controller through connection to the VRF's network convertor.
- On / Off Control, Master control, Room temperature and Fan speed setting via the Network Convertor are available.
- One Network Convertor can be used to connect and control up to 16 single units.



Please consult your distributor for connectable split type air conditioner.
Up to 100 Network Convertors may be connected in single VRF network system.
One Network Convertor is considered as a single refrigerant system, irrespective of the number of connected single models.

Used for connecting Group Remote Controller

4 Group Remote Controllers can be connected to a single Network Convertor (UTY-VGGXZ1).

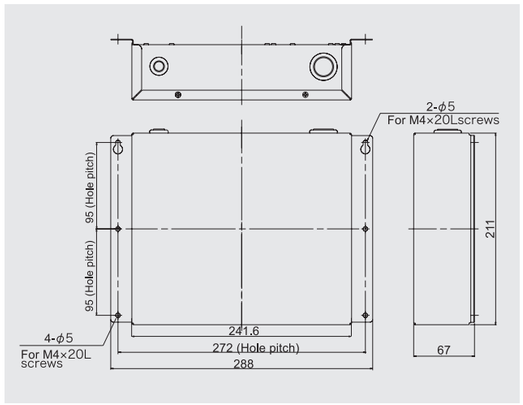


* 2 refrigerant circuits can be covered by a single Network Convertor (UTY-VGGXZ1) . Up to a total of 16 Network Convertors (UTY-VGGXZ1) and System Controller adaptors can be connected in a single VRF network system.

Specifications

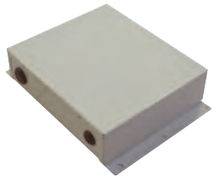
Model name	UTY-VGGXZ1
Power Supply	208-240V 50/60Hz, Single phase
Power Consumption (W)	6.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

Dimensions (Unit : mm)



Network Convertor for LONWORKS®

UTY-VLGX



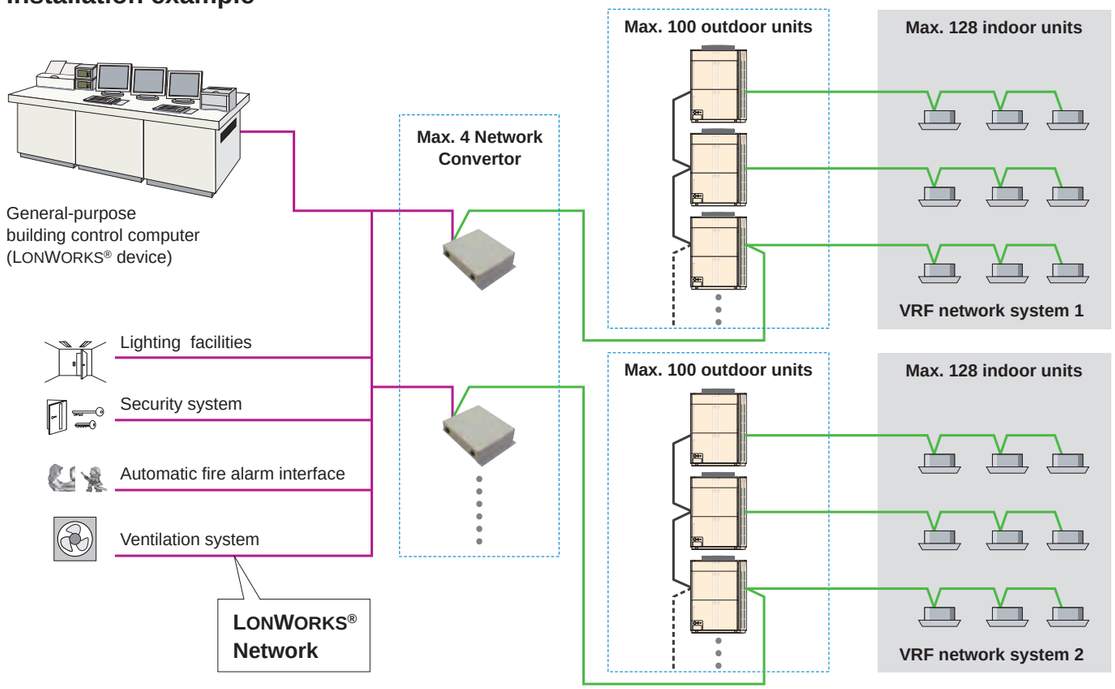
Max. controllable 4 Units to BMS

Max. controllable 100 Outdoor units

Max. controllable 128 Indoor units

- For connection between VRF network system and a LONWORKS® open network for management of small to medium-sized BMS and VRF network system.
- The UTY-VLGX permits central monitoring and control of a VRF network system from a BMS through a LONWORKS® interface.
- Up to 128 Indoor units can be connected to one Network Convertor for LONWORKS®

Installation example



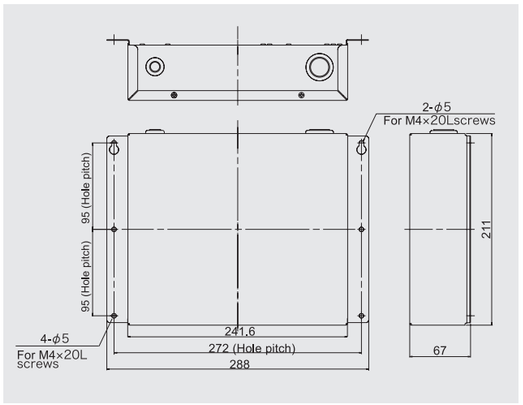
Specifications

Model name	UTY-VLGX
Power Supply	208-240V 50/60Hz, Single phase
Power Consumption (W)	4.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

Transmission specifications (BMS side)

Transmission speed	78 kbps
Transceiver	FT-X1 (Echelon® Corporation)
Transmission way form	Free topology
Terminal resistor	None (It attaches at the terminal of a network.)

Dimensions (Unit : mm)



BACnet® Gateway

Software

UTY-ABGX

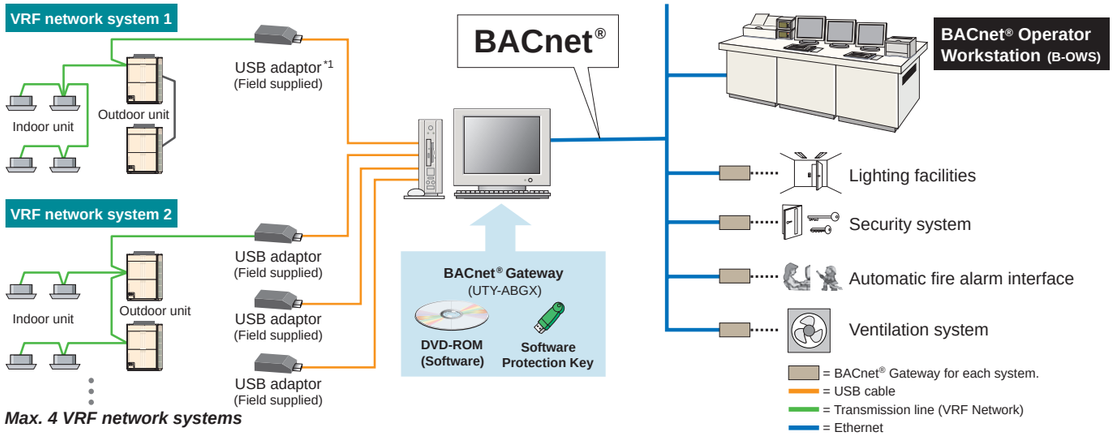
Max. controllable ***4*** *VRF network systems*

Max. controllable ***400*** *Outdoor units*

Max. controllable ***1,600*** *Indoor units*

- It is possible to connect medium to large sized BMS to VRF network system via BACnet®, a global standard for open networks.
- A maximum of 1600 indoor units with 4 VRF network systems (a maximum of 400 indoor units & 100 outdoor units for one network system) can be connected to one BACnet® Gateway.
- It is possible to control or monitor VRF network system from BMS via BACnet® Gateway.
- Compatible with BACnet® (ANSI / ASHRAE-135-2004) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.
- Scheduling function, Alarm & Event functions as well as Electricity Change Apportionment function are provided in BACnet® Gateway.
- Connection between VRF network system to personal computer is possible via U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish.

Installation example



Max. 4 VRF network systems

*1: USB adaptor is U10 USB Network Interface of Echelon® Corporation.

PERSONAL COMPUTER SPECIFICATIONS

Operating system	• Microsoft® Windows® XP SP3 (32-bit) Professional • Microsoft® Windows® Vista® SP2 (32-bit) Home Premium, Business • Microsoft® Windows® 7 SP1 (32/64-bit) Home Premium, Professional • Microsoft® Windows® 8 (32/64-bit) Pro [Supported languages] English, Chinese, French, German, Russian, Spanish, and Polish
CPU	Intel® Core™ i3 2GHz or higher
Memory	2GB or more (Windows® XP, Vista®, 7 32-bit), 4GB or more (Windows® 7 64-bit, Windows® 8)
HDD	40GB or more of free space
Display	1024 x 768 or higher resolution
Interface	USB port (x2-5) is required Ethernet port is required
Software required	Adobe® Reader® 9.0 or later
Hardware required	DVD-ROM Drive

<PACKING LIST>

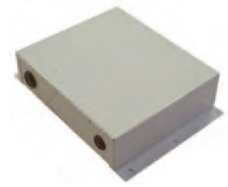
Name and shape	Quantity	Application
DVD-ROM	1	Includes the software and manuals for BACnet® Gateway.
Wibu Key (Software protection key)	1	Software protection key to be inserted in a USB slot running BACnet® Gateway. BACnet® Gateway may only run on a PC with Wibu Key.

Personal computer must be field supplied. U10 USB Network Interface must be field supplied. Contact Echelon® Corporation or its local sales representative for detail.
Product Name : U10 USB Network Interface - TP/FT-10 Channel Model Number : 75010R

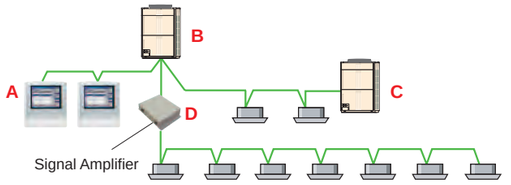
Signal Amplifier

UTY-VSGXZ1

- Transmission Line length can be extended up to 3,600m with multiple Signal Amplifiers.
- Up to 40 signal amplifiers can be installed in a VRF network system.
- A signal amplifier is required,
  (1) When the total wiring length of the transmission line exceeds 500m.
  (2) When the total number of units on the transmission line exceeds 64.

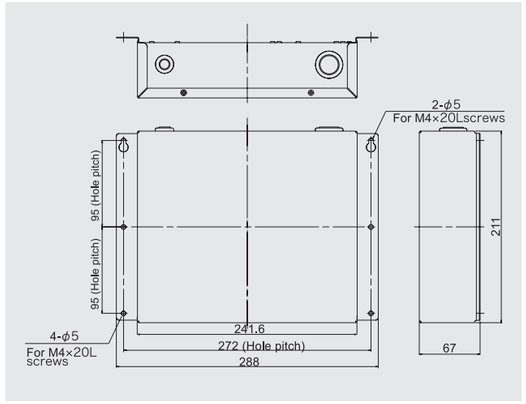


Installation example



AB+BD+BC＜500m

Dimensions (Unit : mm)



Specifications

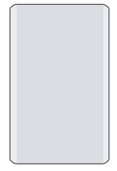
Model name	UTY-VSGXZ1
Power Supply	208-240V 50/60Hz, Single phase
Power Consumption (W)	4.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

External Switch Controller

UTY-TEKX

Air conditioner switching can be controlled by connecting other sensor switches

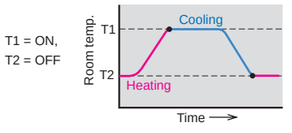
- In combination with a field supply Card-Key Switch or other sensor, the External Switch Controller allows control of the ON / OFF, Room temperature, Fan speed and Master control functions. This makes this product suitable for installations such as hotel rooms.
- Card-key or other sensor switches are available as a field supplied parts.



Installation example

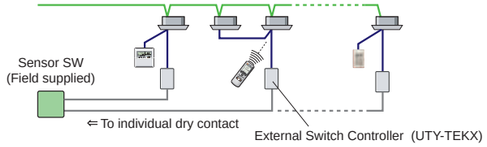
Auto mode operation, which switches the cooling and the heating automatically, is enabled by using the sensor switch and External Switch Controller.

Note: All indoor units will operate in the same mode.

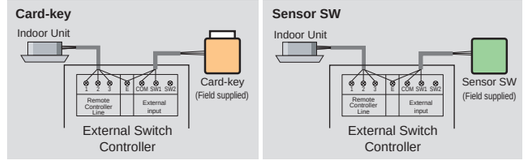


Note 1.
Please choose a thermosensor switch which can be set up for T1 and T2.

Note 2.
The remote controller's operation is prior to the auto mode operation.



Electrical wiring



Specifications

Model name	UTY-TEKX
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 75 x 30
Weight (g)	100

DC12V is supplied by the indoor unit.

Service Tool

Software

UTY-ASGX

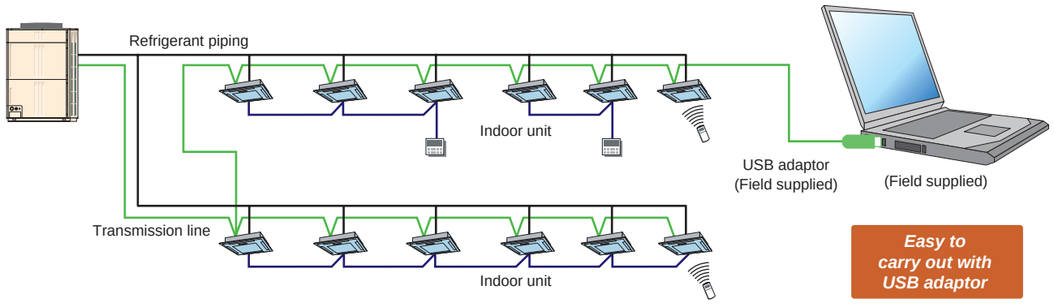
Max. Monitor **100** Outdoor units

Max. Monitor and control **400** Indoor units

Extensive monitoring and analysis functions for installation and maintenance.

- Operation status can be checked and analyzed to detect even the small abnormalities.
- Data collected and stored on site can be checked later, off-line, off-site for more detail analysis.
- One VRF network system with maximum number of up to 400 units can be monitored and controlled.
- Operation status and various sensor information can be monitored and checked real time in the form of list, refrigerant circuit diagram, graphs as well.
- Simple operation control functions are useful during maintenance.
- The recent error history can be retrieved from units on demand to perform analysis on the cause of the error, after connecting Service Tool to the VRF network system.
- Commissioning tool supports test runs, data storage for each unit and saving of data as CSV files, which may be formatted to create commissioning report.
- Connectable to any point of transmission line with USB adaptor (field supplied)
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.

Wiring connection



Easy to carry out with USB adaptor

*USB Adaptor is U10 USB Network interface of Echelon® Corporation.

Functions

1) System List

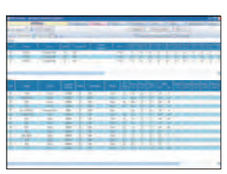
Displays the overall operation status of all or specified units in the system in a list form.

2) Equipment Detail (Diagram)

Displays the detail information for sensor values, electrical components etc. for the specified units in schematic. The information here can be used along with the detail information in list form, to check the operation status of units and make detail analysis on the cause, in case an error occurs.

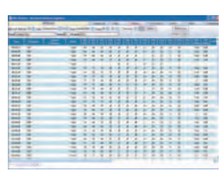
3) Equipment Detail (List)

Displays the detail information for sensor values, electrical components etc. of units in a specified refrigerant system in list form. The information here can be used along with the detail information in diagram form, to check the operation status of units and make detail analysis on the cause, in case an error occurs.



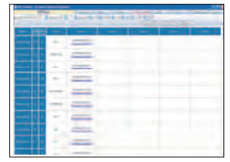
4) Operation History

The indoor units or outdoor unit operation history can be recorded. The displayed operation history can be printed out and saved to a CSV file.



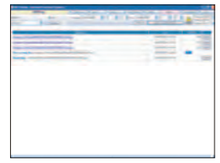
5) Error History

Displays the error information for each unit. The error information can sequentially be displayed up to 50 items as they occur starting with the latest error.



6) Remote File Download

Operation and error history data can be downloaded. Only the required data may be downloaded specifying the refrigerant system, unit and time range.



7) Commissioning Tool

Test run commands can be executed with this tool.
During test running, the outdoor unit / indoor unit sensor data can be saved (commissioning log data).
After the end of test running, this data can be exported in CSV file format.

8) Network Topology Analyzer *

A list of units connected to the VRF system network is displayed in network segments in tree form.

9) Remote Setting *

Function (Field) Setting for indoor unit is realized remotely

10) System Time Setting *

An arbitrary time is set for all the remote controllers within the system.

11) Central Release *

The operation setting restriction function of the indoor units set from the controller can be forcibly released.(remote controller inhibit, temperature upper/lower limit setting)

12) Model Name Writer *

An arbitrary model name can be written to the target unit.

13) Error Memory Reader *

When an error occurs at an outdoor unit, the operation data records before the error are acquired over a network and saved to a CSV file.

Note: To perform "Error Memory Reading", Service Tool and the corresponding outdoor unit must be connected directly with each other. Refer to the Operation Manual of the Service Tool for detail.

14) Time Guard Information *

Reference data for judging the maintenance period of indoor and outdoor units (compressor,FAN, etc. integrated time) is output to a CSV file.

*: Supported by Ver. 1.1 or later

PERSONAL COMPUTER SPECIFICATIONS

Operating system	• Microsoft® Windows® XP SP3 (32-bit) Professional • Microsoft® Windows® Vista® SP2 (32-bit) Home Premium, Business • Microsoft® Windows® 7 SP1 (32/64-bit) Professional • Microsoft® Windows® 8 (32/64-bit) Pro [Supported languages] English only
CPU	1GHz or higher
Memory	512 MB or more (Windows® XP 32-bit) 1GB or more (Windows® Vista®, 7, 8 32-bit) 2GB or more (Windows® 7, 8 64-bit)
HDD	10GB or more of free space
Display	1024 x 768 or higher resolution
Interface	USB port for U10 USB Network Interface and Software protection key
Software required	Internet Explorer 7.0 or 8.0 or 9.0 / Adobe® Reader® 9.0 or later
Hardware required	DVD-ROM Drive

<PACKING LIST>

Name and shape	Quantity	Application
DVD-ROM	1	Includes the software and manuals for Service Tool.
Wibu Key (Software protection key)	1	Software protection key to be inserted in a USB slot running Service Tool. Service Tool may only run on a PC with Wibu Key.

Personal computer must be field supplied. U10 USB Network Interface must be field supplied. Contact Echelon® Corporation or its local sales representative for detail.
Product Name : U10 USB Network Interface - TP/FT-10 Channel Model Number : 75010R

Web Monitoring Tool

Software

UTY-AMGX

4
VRF network systems can be supported

Max. Monitor 400
Outdoor units

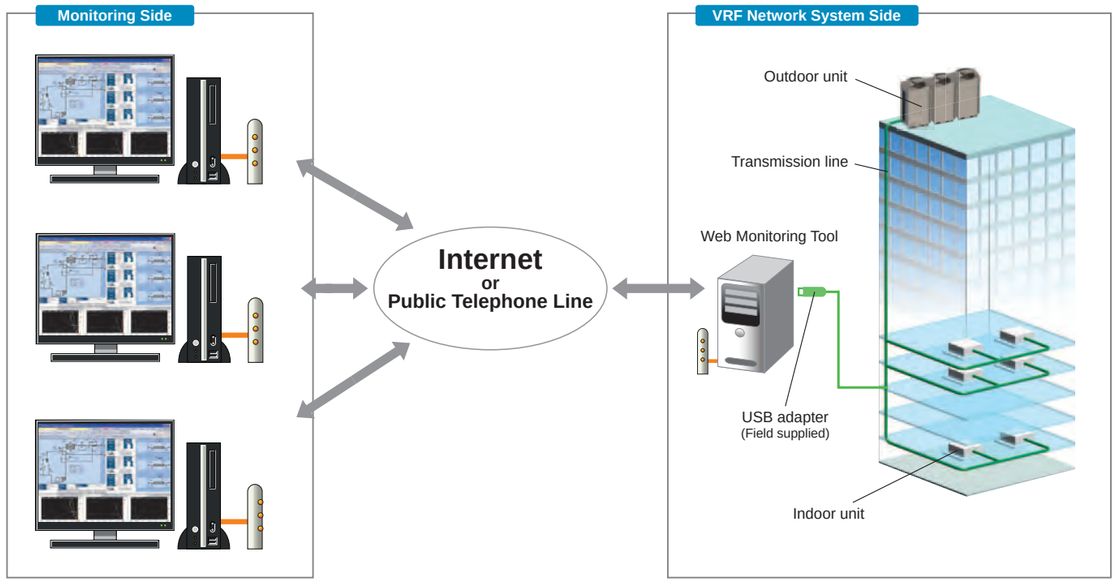
Max. Monitor and control 1600
Indoor unit can be monitored

Product features

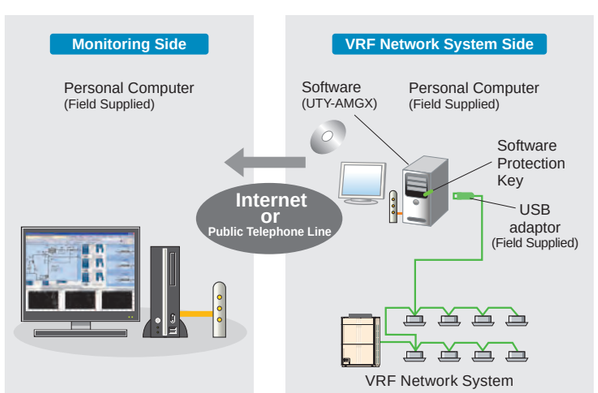
- Troubleshooting is performed by monitoring each unit remotely during periodical system checks off-site.
- Operation status can be checked and analyzed to detect even the smallest abnormalities.
- Four VRF network systems each with 400 units, with maximum number of up to 1,600 units can be monitored and controlled.
- Operation status and various sensor information can be monitored and checked real time in the form of list, refrigerant circuit diagram, and graphs as well.
- The monitoring data in a remote side can be optionally downloaded. And, this data can be displayed in off-line mode of the Service Tool.
- Error notification can be automatically transmitted to several locations using the internet*1.
- Monitoring side computer is not required to install special software, requires only general web browser.
- Connectable to any point of transmission line with U10 USB interface (field supplied)
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.

* 1: USB of internet mail system required.

Web Monitoring System

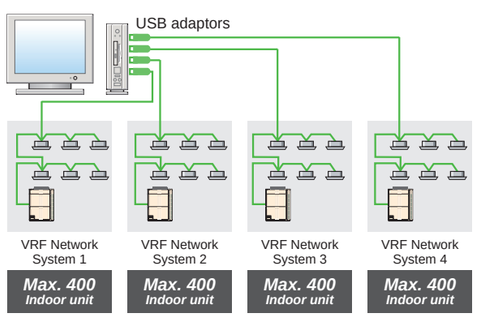


System components



Support 4 VRF network systems

USB adaptor (max. 4 adaptors per PC) permit, monitoring of up to 1,600 indoor units.
Suitable for large-scale buildings or hotels.



COMPARISON TABLE

No.	Item	Service Tool UTY-ASGX	Web Monitoring Tool UTY-AMGX	
			VRF network system Side	Monitoring Side
1	Interchangeability of equipment	●	●	●
2	Indication of equipment list	●	●	●
3	Operation control	●	●	—
4	Indication of refrigerant circuit diagram	●	●	●
5	Commissioning tool	●	●	—
6	Monitoring of equipment information	●	●	●
7	Monitoring of operating condition	●	●	●
8	Monitoring of sensor data	●	●	●
9	Storage and CSV output of operating history (sensor data)	●	●	●
10	Indication of trend graph	●	●	●
11	Printing of trend graph	●	●	●
12	Monitoring and screen display of abnormalities	●	●	●
13	E-mail automatic transmission of abnormalities	—	●*1	—
14	Setting for user level	—	●	—
15	Network Topology Analyzer *	●	●	—
16	Remote Setting *	●	●	—
17	System Time Setting *	●	●	—
18	Central Release *	●	●	—
19	Model Name Writer *	●	—	—
20	Error Memory Reader *	●	—	—
21	Time Guard Information *	●	●	●

*: Supported by Ver. 1.1 or later
*1: it is available only during a connection to the Internet.

PERSONAL COMPUTER SPECIFICATIONS

Operating system	• Microsoft® Windows® XP SP3 (32-bit) Professional • Microsoft® Windows® Vista® SP2 (32-bit) Home Premium, Business • Microsoft® Windows® 7 SP1 (32/64-bit) Professional • Microsoft® Windows® 8 (32/64-bit) Pro [Supported languages] English only
CPU	1GHz or higher
Memory	1GB or more (Windows® XP, Vista®, 7, 8 32-bit) 2GB or more (Windows® 7, 8 64-bit)
HDD	40GB or more of free space
Display	1024 x 768 or higher resolution
Interface	USB port (for U10 USB Network Interface Max.4 , Software protection key) Either of the following interface is required for remote connection: • Public Telephone LIne : Modem is required • Internet using LAN : Ethernet port is required
Software required	Internet Explorer 7.0 or 8.0 or 9.0 / Adobe® Reader® 9.0 or later
Hardware required	DVD-ROM Drive

<PACKING LIST>

Name and shape	Quantity	Application
DVD-ROM	1	Includes the software and manuals for Web Monitoring Tool.
Wibu Key (Software protection key)	1	Software protection key to be inserted in a USB slot running Web Monitoring Tool. Web Monitoring Tool may only run on a PC with Wibu Key.

Personal computer must be field supplied. U10 USB Network Interface must be field supplied. Contact Echelon® Corporation or its local sales representative for detail.
Product Name : U10 USB Network Interface - TP/FT-10 Channel Model Number : 75010R

Energy Recovery Ventilator

Models

UTZ-BD025B
UTZ-BD035B
UTZ-BD050B
UTZ-BD080B
UTZ-BD100B

Energy recovery ventilator unit offers maximum comfort and greater energy savings.

Heat exchange ventilation and normal ventilation

Heat exchange ventilation
When a room is cooled or heated, the exhausted cooling / heating energy is recovered by heat-exchange ventilation.

Normal ventilation
This is used in spring and autumn, when rooms are not cooled or heated, that is, when there is little difference between the indoor and outdoor air conditions. In addition, at night during the hot season, when the outside air temperature drops the outside air is drawn inside without heat exchange, alleviating the load on the air conditioning equipment.

Adopts a highly efficient counter-flow heat exchange element

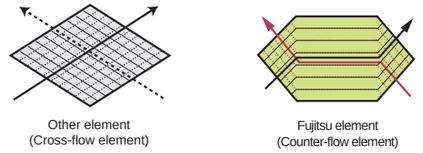
Energy efficiency and ecology

Energy consumption is dramatically reduced by using a counterflow heat-exchange element. Air conditioning load is reduced by approximately 20%, resulting in significant energy savings. Recovers up to 77% of the heat in the outgoing air.

20% Energy saving

Features of heat exchange element

With the cross-flow element, air moves in a straight line across the element. With the counter-flow element , air flows through the element for a longer time (longer distance) ,so the heat-exchange effect remains unchanged.



Quiet operation

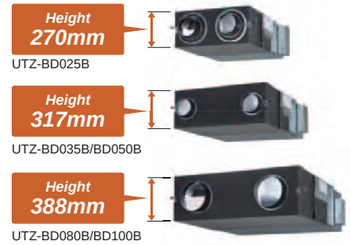
Significantly reducing low pressure loss and noise allows low-noise operation.

Extended range of an external static pressure

An external static pressure is improved by adopting a powerful fan motor.
This allows for application in a wide variety building.

Slim shape and easier installation

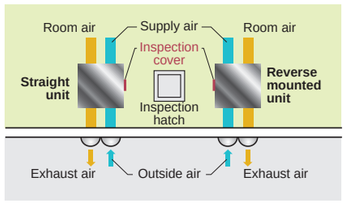
Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.



Reverse mountable direct air supply / exhaust system

Adoption of straight air supply / exhaust system: Duct design is simplified because the air supply / exhaust ducts are straight.

Since each unit can be mounted in reverse position, only one inspection hole is needed for two units: Two units can share one inspection hole so duct work is easier and more flexible.



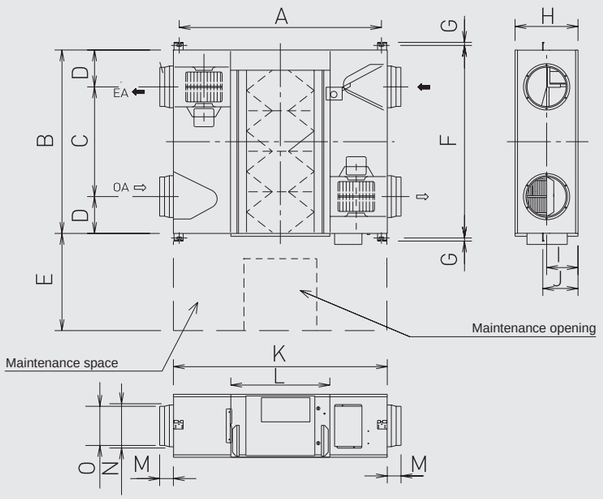
Specifications

Rated flow rate				250 m³/h	350 m³/h	500 m³/h	800 m³/h	1000 m³/h
Model No.				UTZ-BD025B	UTZ-BD035B	UTZ-BD050B	UTZ-BD080B	UTZ-BD100B
Power source				220 - 240V, 50Hz				
HEAT EXCHANGE VENTILATION	Input power	Extra high / High / Low	W	128 / 123 / 96	190 / 185 / 168	289 / 225 / 185	418 / 378 / 295	464 / 432 / 311
	Air flow rate	Extra high / High / Low	m³/h	250 / 250 / 190	350 / 350 / 240	500 / 500 / 440	800 / 800 / 630	1000 / 1000 / 700
	External static pressure	Extra high / High / Low	Pa	105 / 95 / 45	140 / 60 / 45	120 / 60 / 35	140 / 110 / 55	105 / 80 / 75
	Temperature Exchange Efficiency	Extra high / High / Low	%	75 / 75 / 77	75 / 75 / 78	75 / 75 / 76	75 / 75 / 76	75 / 75 / 79
	Energy Exchange Efficiency Cooling	Extra high / High / Low	%	63 / 63 / 65	66 / 66 / 71	62 / 62 / 64	65 / 65 / 68	65 / 65 / 70
	Energy Exchange Efficiency Heat pump	Extra high / High / Low	%	70 / 70 / 72	69 / 69 / 73	67 / 67 / 69	71 / 71 / 74	71 / 71 / 76
	Sound pressure level	Extra high / High / Low	dB*	31.5 / 30.5 / 26.5	33 / 31 / 25.5	37.5 / 35.5 / 32.5	37.5 / 37 / 34.5	38.5 / 37.5 / 34.5
NORMAL VENTILATION	Input power	Extra high / High / Low	W	128 / 123 / 96	190 / 185 / 168	289 / 225 / 185	418 / 378 / 295	464 / 432 / 311
	Air flow rate	Extra high / High / Low	m³/h	250 / 250 / 190	350 / 350 / 240	500 / 500 / 440	800 / 800 / 630	1000 / 1000 / 700
	External static pressure	Extra high / High / Low	Pa	105 / 95 / 45	140 / 60 / 45	120 / 60 / 35	140 / 110 / 55	105 / 80 / 75
	Sound pressure level	Extra high / High / Low	dB*	31.5 / 30.5 / 26.5	33 / 31 / 25.5	38.5 / 38 / 32.5	37.5 / 37 / 34.5	40.5 / 39.5 / 36.5
Dimensions (W × D × H)			mm	882 x 599 x 270	1050 x 804 x 317	1090 x 904 x 317	1322 x 884 x 388	1322 x 1134 x 388
Weight			kg	29	49	57	71	83
Outlet duct diameter			mm	150	150	200	250	250
Operation range			°C	-10 ~ 40	-10 ~ 40	-10 ~ 40	-10 ~ 40	-10 ~ 40
Maximum humidity			%	85	85	85	85	85

* The noise level must be measured 1.5 m below the centre of the unit.

Dimensions (Unit : mm)

Models: UTZ-BD025B / UTZ-BD035B / UTZ-BD050B / UTZ-BD080B / UTZ-BD100B



	UTZ-BD025B	UTZ-BD035B	UTZ-BD050B	UTZ-BD080B	UTZ-BD100B
A	810	978	1018	1250	1250
B	599	804	904	884	1134
C	315	580	640	428	678
D	142	112	132	228	228
E	600	600	600	600	600
F	655	860	960	940	1190
G	19	19	19	19	19
H	270	317	317	388	388
I	135	159	159	194	194
J	159	182	182	218	218
K	882	1050	1090	1322	1322
L	414	470	470	612	612
M	95	70	127	85	85
N	219	162	210	258	258
O	144	144	194	242	242

Auto Louver Grille Kit (Option)

Models

UTD-GXSA-W
UTD-GXSB-W
UTD-GXSC-W

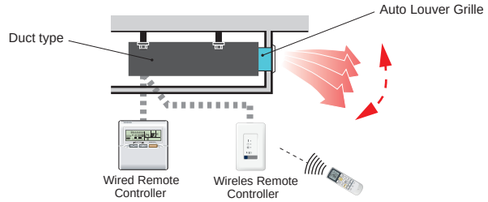
Simple flat Auto Louver will provide comfort airflow and harmonize with luxury interior.

Closed louver

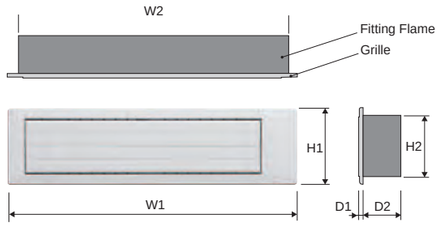
Opened louver

Flexible Control

- **Operation with indoor unit**
  Auto Louver can be operated by synchronizing remote controller of indoor unit.
- **UP and Down auto swing**
  • Auto airflow direction and auto swing
  • 4 steps selectable
- **Auto-closing louver**
  When operation of indoor unit is stopped, the louver will automatically close.



Dimensions



Unit: mm

Model Name	W1	W2	H1	H2	D1	D2
UTD-GXSA-W	683	645	180	148	9	84
UTD-GXSB-W	883	845				
UTD-GXSC-W	1,083	1,045				

Specifications

Model name			UTD-GXSA-W	UTD-GXSB-W	UTD-GXSC-W
Applicable Indoor Unit			ARXD07/09/12/14GALH	ARXD18GALH	ARXD24GALH
Power Supply			Connecting with Control box of indoor unit		
Fixing of Auto Louver Grille			Screw fixing to Flange or Square Duct		
Extension Square Duct Limit			1.0m (Max. duct length between indoor unit and Grille)		
Net Dimension (H x W x D)		mm	180x683x(84+9)	180x883x(84+9)	180x1083x(84+9)
Weight	Net	kg	2.0	2.5	3.0
	Gross		3.0	3.5	4.0
Color			White		
Louver Motor			Stepping Motor		
Accessories			Fitting Flame, etc.		
Operation range	Cooling	°C	18 to 32		
		% RH	80% or less		
	Heating	°C	16 to 30		

Building Information Modeling (BIM)

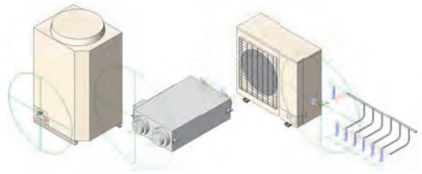
FUJITSU provides the Building Information Modeling (BIM) object models and contents for our VRF system and some products to the architect, designer and contractor using Autodesk® Revit® technology from our Website and Autodesk® Seek Website, etc.

BIM Object Models Ensure Proper Design

Many products available

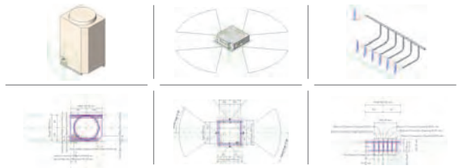
We provide BIM data for indoor units, outdoor units, and accessories.
We will continue to create and provide products to support the global market.

Object models: VRF “AIRSTAGE V-II” /8 Rooms Multi “HFI” / Energy Recovery Ventilator
Files : Indoor units 75 files / Outdoor units 22 files / Options 15 files



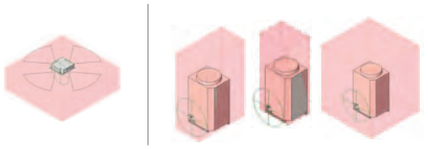
3D and 2D product data

We provide 3D data that is similar to the product appearance. 2D CAD design operations are supported and 2D display is also provided.
The data can also be output in other formats, such as DXF and DWG, which are used by other design CAD.



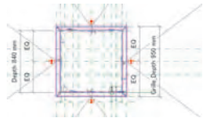
Installation limitation

The equipment installation limitation range is shown. The distance range from the wall, etc., is automatically displayed to make it easy to provide highly reliable layout designs.



Installation information

Other information, such as symbols showing the airflow direction that are required for installation drawings, is built in and can be automatically reflected in 2D drawings. Installation drawings can be created easily.



Product specifications & Link information

Contains the basic information required for air conditioner design, including unit size, capacity, input power, noise, and airflow rate.

*：URL: http://airstage.fujitsugeneral.com

Product parameter	Link
Power source Input power Capacity Airflow rate Sound pressure level Dimensions Weight Connection pipe diameter Refrigerant Material/Color	FUJITSU GENERAL Website*

*：URL:http://www.fujitsu-general.com/index.html

Data volume

Fujitsu Revit® files are small, requiring very little system resources.

Required software

Autodesk® Revit® series software
・Autodesk® Revit® Architecture
・Autodesk® Revit® MEP
・Autodesk® Revit® Structure

Data format
・RFA

Design Simulator

Enter your requirements, select your controls and options, design your layout and let the program do the rest.

Put the charts and pens away and design your projects on your computer with ease using the Design Simulator. Everything from selecting indoor and outdoor units, allocating controls and optional parts to designing the piping and wiring systems is made easier using the program's built-in features. Once your project is designed take advantage of the Export functions to easily get materials lists, product specifications, refrigerant calculations and more - it'll even export to Word or Excel formats, and group the relevant CAD data for your project.

1) Input Project Details

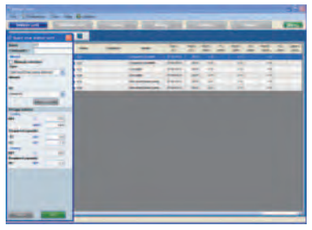
Enter the details of the project (optional)

2) Selection of Series

Select which series of equipment you are after, systems which share common units are grouped together.

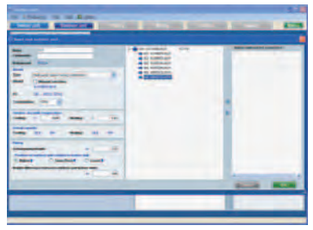
3) Select Indoor units

Enter the Indoor Unit Requirements and conditions - then use automatic or manual selection to determine the unit to suit your needs.



4) Select Outdoor Units

Add Indoor units to each system, then determine the Outdoor unit to suit your needs. If indoors in Step 3 were selected using Auto selection, Step 4 may reselect these indoors to suit the actual capacity

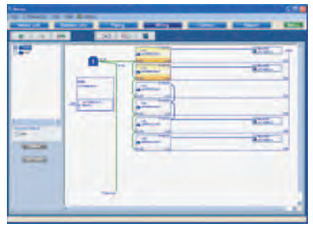


5) Piping Diagram / Input piping lengths

Piping diagrams are automatically created for each refrigerant system and information for each unit is automatically displayed. When the piping lengths are added the refrigerant charge is calculated and any additional refrigerant is shown.

6) Wiring Diagram / Grouping of Remote Controllers

Wiring and remote control diagrams are automatically created for each refrigerant system. Set remote controller groups and addition of unit accessories and optional parts here.

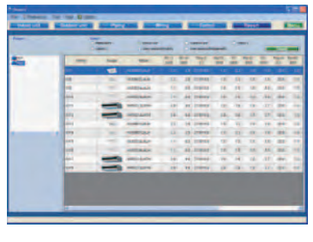


5) Central Controller and Converter options

Select any central controllers and converters that are to be used on the system. There is an Auto function available to let the program determine home many of each control you require for the system as designed.

8) Display and Export Project Report

View materials list for the project. Select which components are to be included into report and then export as csv, rtf or dxf format. You can also include the CAD data in your export to suit the models on your project - in 2D DXF or 3D RFA formats.



*For further assistance, follow the link in the program to the online Movie Manual to view step by step explanations of all you need to know.

Select Your Preferences

Select your language, region, default unit names and your preferred units of measurement. The program will then perform the required calculations and return the results in the format you want to see. Once this is done once, the program will remember your choices for future use.

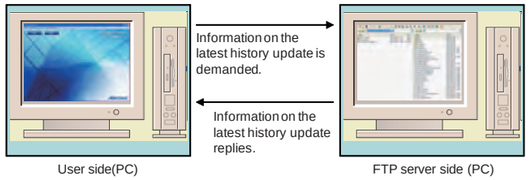
Update your Design Simulator

The information specific to your project can be exported in a number of industry standard file formats.

- Word format (rtf)
- Excel format (csv)
- AutoCAD format (DXF)
- 2D Data (DXF)
- 3D Data (RFA)

Update your Design Simulator

Database can be easily updated online using AutoUpdate function through FTP. Once you hit update, the program will connect to the online server and tell you if a newer version is available.


Information on the latest history update is demanded.
Information on the latest history update replies.
User side(PC)
FTP server side (PC)

Installation Requirements

Software	Design Simulator	
Operating System	Microsoft Windows XP / Vista / 7	
System Requi rements	Hardware	CPU: 500 MHz or faster
		Memory: 2GB (Vista/7) 512MB (XP) or more
		HDD: 1GB or more
	Display	Resolution: 1024 x 768 or higher
	Software	Internet Explorer 7.0 or newer
		Adobe Reader 9.0 or newer
		Microsoft Word 2003 or newer

Program Features and Specifications

Preferences	Language	Choose from 26 different languages
	Brand Setting	Select Fujitsu or General for products specific to your region
	Unit Naming	Choose default name for automatic naming of Indoor and Outdoor Units. i.e. Indoor = FCU, IU or AC. Outdoor = CU or OU
	Measurement Unit Setting	Set your preferred measurement units for Temperature, Unit and Piping Size, Weight, Capacity and Airflow
Model Selection Options	Automatic Selection for Indoor Units, Outdoor Units, Piping and Wiring using the criteria you enter	
	Manually select the units of your choice	
	Select from suggested Optional parts to suit your systems	
	Select from Controllers / Adapters / Convertors for your project	
System Design	Automatic creation of piping and wiring diagrams for the systems you designed	
	Modify the piping and wiring diagrams to suit your specific installation	
Project and Model Information	Materials List	
	Product Detail (Specifications, Options, Photographs)	
	Piping and Wiring Diagrams	
	Additional Refrigerant Calculation automatic when piping lengths are entered	
	CAD Data for models specific to your project in 2D - DXF or 3D RFA formats	
Report Export Formats	Word (RTF format)	
	Excel (CSV format)	
	DXF format	
Update Options	Automatic Update via FTP through internet (AutoUpdate button)	
	Download the latest version of the program if Autoupdate is unavailable due to firewall etc	

Note: Models are added and updated constantly, specifications are subject to change without notice.
Update your system to ensure you have the latest information.

Optional Parts

Controllers

Wired Remote Controller (Touch Panel)
UTY-RNRG

Wired Remote Controller
UTY-RNKG

Simple Remote Controller
UTY-RSKG
With operation mode

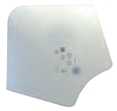
Simple Remote Controller
UTY-RHKG
Without operation mode

Wireless Remote Controller
UTY-LNHG

IR Receiver Unit
UTB-YWC

For All Duct type

IR Receiver Unit
UTY-LRHGB1



For Cassette type

Group Remote Controller
UTY-CGGG

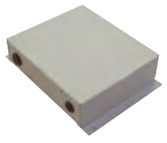
Central Remote Controller
UTY-DCGG

Touch Panel Controller
UTY-DTGG

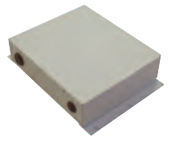
System Controller Software
UTY-APGX

Convertors / Adaptors

Network Convertor
UTY-VGGXZ1



Network Convertor for LONWORKS®
UTY-VLGX



BACnet® Gateway Software
UTY-ABGX

DVD-ROM (Software)

Software Protection Key

Signal Amplifier
UTY-VSGXZ1

External Switch Controller
UTY-TEKX

Others

Flange (Round)
UTD-RF204

For Low Static Pressure Duct type / Medium Static Pressure Duct type

Flange (Square)
UTD-SF045T

For Low Static Pressure Duct type / Medium Static Pressure Duct type

Remote Sensor Unit
UTY-XSZX

For All Duct type

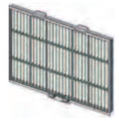
New amenity space can be offered by installing the Remote sensor.

Long-Life Filter
UTD-LF25NA

For Low Static Pressure Duct type / Medium Static Pressure Duct type

Long-Life Filter
UTD-LF60KA

For High Static Pressure Duct type (ARXC36/45/60GATH)



Auto Louver Grille Kit
UTD-GXSA-W (for ARXD07/09/12/14GALH)
UTD-GXSB-W (for ARXD18GALH)
UTD-GXSC-W (for ARXD24GALH)

For Slim Duct type

Drain Pump Unit
UTZ-PX1BBA

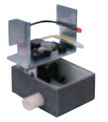
For Low Static Pressure Duct type

UTZ-PX1NBA

For Low Static Pressure Duct type / Medium Static Pressure Duct type

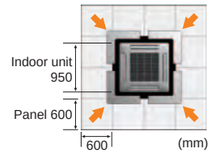
Drain Pump Unit
UTR-DPB24T

For Ceiling type



Wide Panel
UTG-AGYA-W

For Cassette type



Air Outlet Shutter Plate
UTR-YDZB

For Compact Cassette type

Shuts the air outlet when only using as 3 blow out.

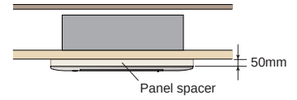
Air Outlet Shutter Plate
UTR-YDZC

For Cassette type

Shuts the air outlet when only using as 3 blow out.

Panel Spacer
UTG-BGYA-W

For Cassette type

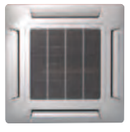


Cassette Grille
UTG-UFGC-W

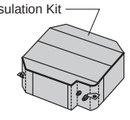
For Compact Cassette type

Cassette Grille
UTG-UGGA-W

For Cassette type



Insulation Kit for High Humidity
UTZ-KXGA For Cassette type
UTZ-KXGB For Slim Cassette type
UTZ-KXGC For Compact Cassette type



Optional Parts

Connection Units

Separation Tube
UTP-AX090A

Gas Pipe

Liquid Pipe

Separation Tube
UTP-AX180A

Gas Pipe

Liquid Pipe

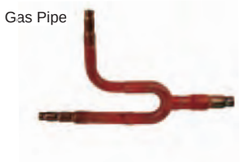
Separation Tube
UTP-AX567A

Gas Pipe

Liquid Pipe

Outdoor Unit Branch kit
UTP-CX567A

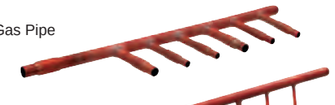
Gas Pipe



Liquid Pipe

Header
UTR-H0906L
UTR-H1806L

Gas Pipe



Liquid Pipe

Header
UTR-H0908L
UTR-H1808L

Gas Pipe

Liquid Pipe

EV Kit
UTR-EV09XB
UTR-EV14XB

Specifications

Outdoor unit Branch kit

Model name		UTP-CX567A
Number of Outdoor unit	2 outdoor units	1
	3 outdoor units	2

Separation Tube

Model name	UTP-AX090A	UTP-AX180A	UTP-AX567A
Total cooling capacity of indoor unit (kW)	28.0 or less	28.1 to 56.0	56.1 or more

Header

Model name			
	3-6 Branches	UTR-H0906L	UTR-H1806L
	3-8 Branches	UTR-H0908L	UTR-H1808L
Total cooling capacity of indoor unit (kW)		28.0 or less	28.1 to 56.0

EV Kit

Model name	UTR-EV09XB	UTR-EV14XB
Application Model	ASHE07GACH ASHE09GACH	ASHE12GACH ASHE14GACH

Applications

There are many applications for Airstage VRF systems including such markets as education, healthcare,hospitality, utilities, office buildings, apartment buildings, condominiums, and restaurants. Note: VRF Heat Recovery system provides simultaneous Heating and Cooling. System operates both Heating mode and Cooling mode.

Medical and Healthcare Facilities

VRF gives each patient individual control of their room temperature. Central control ensures that air conditioning is only delivered to rooms that are occupied.

INDIVIDUAL CONTROL

VRF gives each patient or each room individual control of their room temperature.

CLEAN AIR

VRF systems can use ductless indoor units reducing the time and expense of maintaining a HVAC system and eliminating the risk of duct-borne molds and bacteria.

CENTRAL CONTROL

Powerful central control ensures that heating and cooling are delivered to rooms that are occupied. This provides enormous savings for facilities with revolving occupancy.

MAINTENANCE

Since each refrigerant circuit has the ability to operate independently, a properly designed VRF system can add a layer of security to a HVAC system. If an individual unit needs to be shut down for repairs, the rest of the system can operate normally.

FRESH AIR

VRF systems can be integrated with fresh air systems to ensure that air quality meets the needs of the occupants. VRF provides the most comfortable environment for all occupants.

Applications

Educational and Religious Facilities

In a school, an investment in VRF is an investment in your community. VRF is more efficient than conventional systems, providing financial savings to the school for many years. Also, a quiet VRF system creates a much better learning environment for students.

HEALTHIER FACILITY
VRF systems can be integrated with fresh air systems to ensure that air quality meets the needs of the teachers and students.

CENTRAL CONTROL
Powerful central control can monitor and control individual schools, or an entire college campus, from a single location.

ZONING
Save energy by heating and cooling the classrooms that are occupied. Set temperature can pre-programmed to meet the energy budget for the school district.

COMFORT
VRF helps achieve a healthier, quieter, more comfortable and productive learning environment.

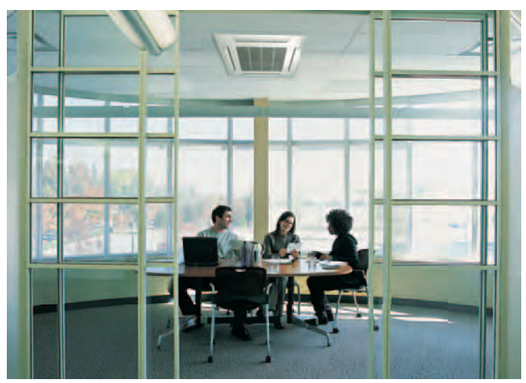
Office Buildings and Retail Spaces

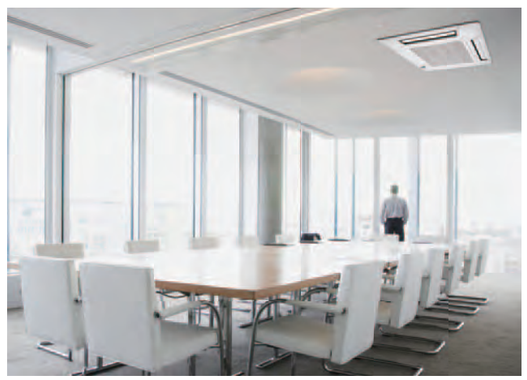
VRF provides a comfortable work environment for all employees. Zoning ensures that energy is only used to cool/heat occupied offices. Quiet indoor units and precise temperature control creates the most comfortable and productive work environment.

QUIET
Indoor units and outdoor units creates a pleasant work environment and reduces noise complaints.

ZONING
Save energy by heating and cooling occupied offices. No more hot/cold calls since each zone or tenant has individual control of the set temperature.

CONTROL
Powerful controls options can manage and monitor entire building from a single location.





EASE OF INSTALLATION
Can be installed in occupied office spaces with minimal disruption to occupants. Can even be installed without disrupting the existing HVAC system.

FLEXIBLE
As tenants and office configurations change, VRF system configurations can also be modified (within original design constraints) to meet the needs of new tenants.

COMFORT
VRF provides a comfortable work environment for all employees. Quiet indoor units and precise temperature control creates the most comfortable and productive work environment.